DVD Receiver **HTS6510/05/12**

Service
Service
Service

Service Manual

CLASS 1
LASER PRODUCT

MP3-CD PLAYBACK
MP3

DVD
VIDEO

COMPACT
disc
DIGITAL VIDEO

COMPACT
disc
DIGITAL AUDIO

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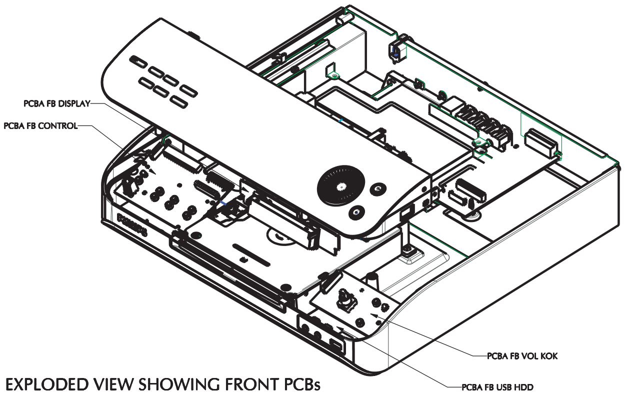
Published by KC-TE 0626 AV Systems Printed in the Netherlands Subject to modification EN 3139 785 32230

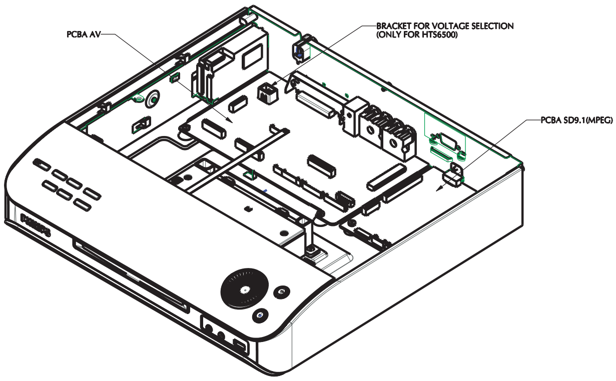
Version 1.0

PHILIPS

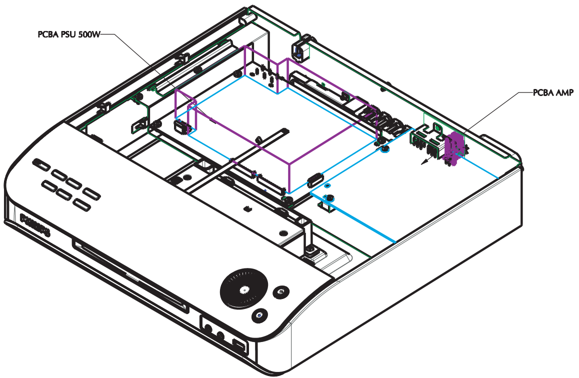
LOCATION OF PC BOARDS


PCBA FB DISPLAY
PCBA FB CONTROL
PCBA FB VOL KOK
PCBA FB USB HDD

EXPLODED VIEW SHOWING FRONT PCBs


PCBA AV
BRACKET FOR VOLTAGE SELECTION
(ONLY FOR HTS6500)
PCBA SD9.1(MPEG)

HTS4550/4750/6500 PCBs ON THE LOWER LEVEL


PCBA PSU 500W
PCBA AMP

HTS6500 PCBs ON TOP OF FRAME

VERSION VARIATIONS:

Type /Versions: Features &	HTS6510/05/12
Video (Yellow, Cinch)	x
Component Video, (Y/Pb/Pr) -P-scan	x
SCART (CVBS/RGB)	x
Digital In - Coaxial	x
TV In (Left/Right)	–
Auxiliary (Left/Right)	x
HDMI	x
Power / Amp(VGA)	–

1. Specifications

1.1 General:

Mains voltage : 230V
Mains frequency : 50Hz
Power consumption : < 80W at 1/8 P_{rated}
< 1W Eco Standby Power
Dimension main unit : 340 x 70 x 330mm

1.2 Tuner

FM

Tuning range : 87.5-108MHz
Grid : 50kHz
IF frequency : 10.7MHz ± 25kHz
Aerial input : 75Ω coaxial
Sensitivity at 26dB S/N : < 7μV
Selectivity at 59/300kHz bandwidth : > 25dB
IF rejection : > 60dB
Image rejection : > 25dB
Distortion at RF=1mV, dev. 75kHz : < 3%
-3dB Limiting point : 8μV
Crosstalk at RF=1mV, dev. 67.5kHz : > 28dB

1.3 AMPLIFIER:

Total output power : 500W
L/R output power : 1 x 70W type: 75W
Centre : 1 x 95W type: 100W
Surround : 1 x 70W type: 75W
Subwoofer : 1 x 95W type: 100W

Frequency response ±3dB : 150Hz-20kHz
Hum (Volume Minimum) : 200nW
Residual noise (Volume Minimum) : 40nW

Input sensitivity
  Aux In : 1V ± 3dB at 39kΩ
  Scart In : 0.5V ± 3dB at 39kΩ

1.4 COMPACT DISC/VCD/DVD:

Video Decoding : MPEG-1/MPEG-2/ DivX 3/4/5/6, Ultra
Video DAC : 12 Bits
Signal System : PAL / NTSC
Video Format : 4:3 / 16:9

CVBS Out [1)]
  CVBS level : 1.0 ± 0.1V_{p-p}
  Luminance S/N : >= 55dB

RGB/YUV Out [1)]
  Amplitude : 0.7 ± 0.1V_{p-p}
  S/N : >= 60dB

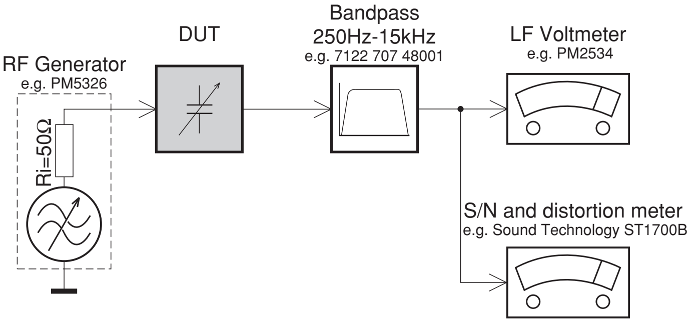
S-Video Out [1)]
  Y level : 1.0 ± 0.1V_{p-p}
  Y S/N : >= 60dB
  C level (burst) : 286mV_{p-p} +1/-4dB (NTSC)
  300mV_{p-p} +1/-4dB (PAL)

[1)] Output terminals to be terminated with 75Ω

2. Measurements Setup, Service Aid & Lead Free Requirements

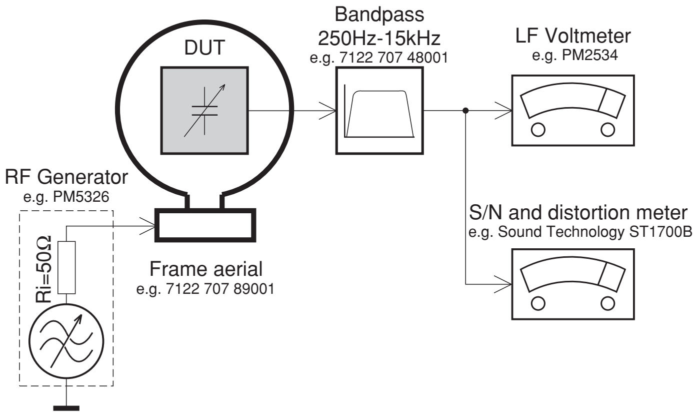
MEASUREMENT SETUP

Tuner FM


RF Generator
e.g. PM5326
Ri=50Ω
DUT
Bandpass
250Hz-15kHz
e.g. 7122 707 48001
LF Voltmeter
e.g. PM2534
S/N and distortion meter
e.g. Sound Technology ST1700B

Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilottone (19kHz, 38kHz).

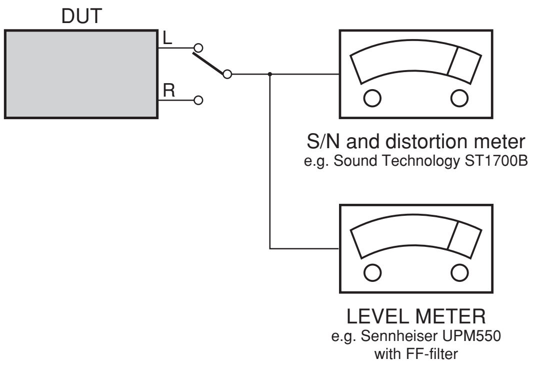
Tuner AM (MW,LW)


DUT
Bandpass
250Hz-15kHz
e.g. 7122 707 48001
LF Voltmeter
e.g. PM2534
RF Generator
e.g. PM5326
Ri=50Ω
Frame aerial
e.g. 7122 707 89001
S/N and distortion meter
e.g. Sound Technology ST1700B

To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday´s cage.
Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

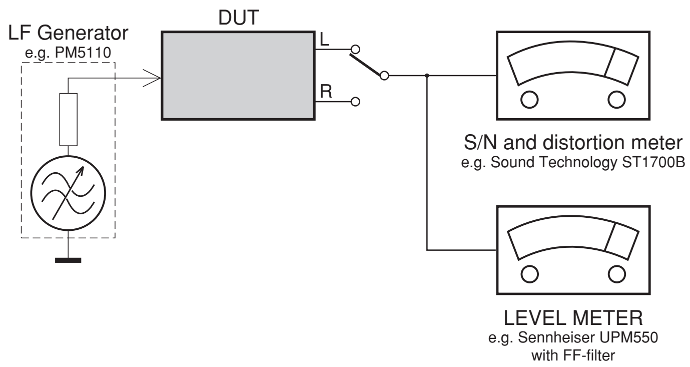
CD

Use Audio Signal Disc SBC429 4822 397 30184
(replaces test disc 3)


DUT
L
R
S/N and distortion meter
e.g. Sound Technology ST1700B
LEVEL METER
e.g. Sennheiser UPM550
with FF-filter

Recorder

Use Universal Test Cassette **CrO2** SBC419 4822 397 30069
or Universal Test Cassette **Fe** SBC420 4822 397 30071


LF Generator
e.g. PM5110
DUT
L
R
S/N and distortion meter
e.g. Sound Technology ST1700B
LEVEL METER
e.g. Sennheiser UPM550
with FF-filter

SERVICE AIDS

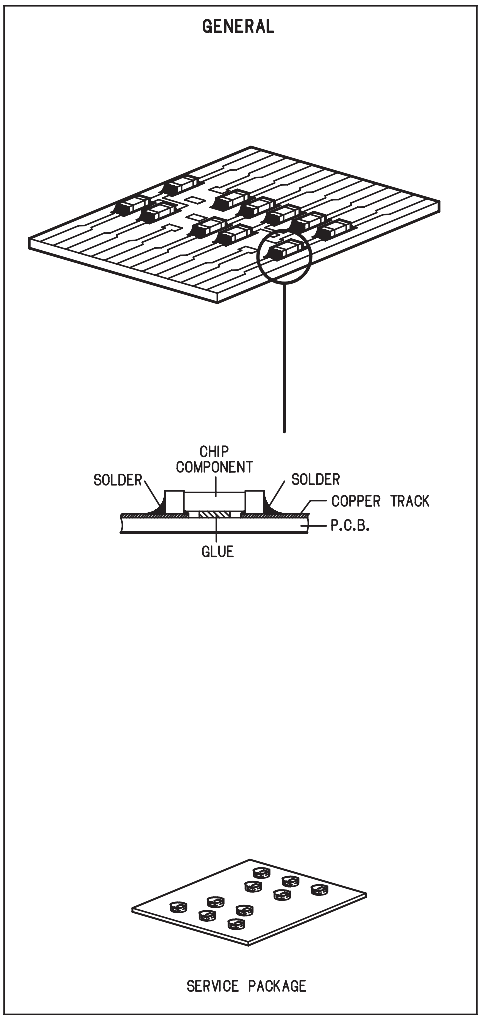
Service Tools:

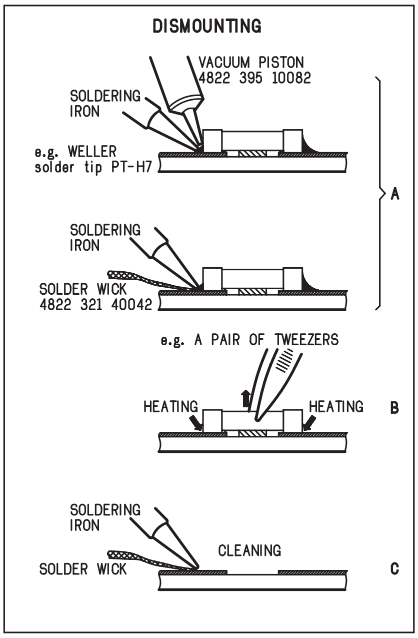
Universal Torx driver holder	4822 395 91019
Torx bit T10 150mm	4822 395 50456
Torx driver set T6 - T20	4822 395 50145
Torx driver T10 extended	4822 395 50423

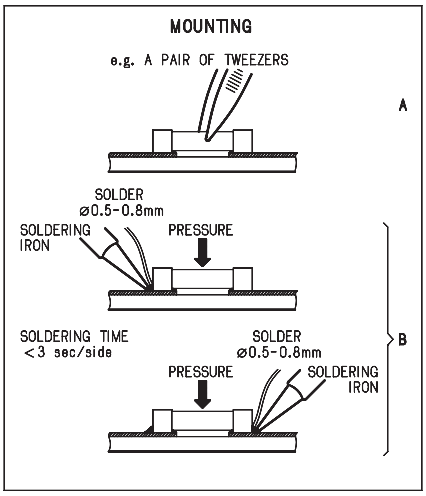
Compact Disc:

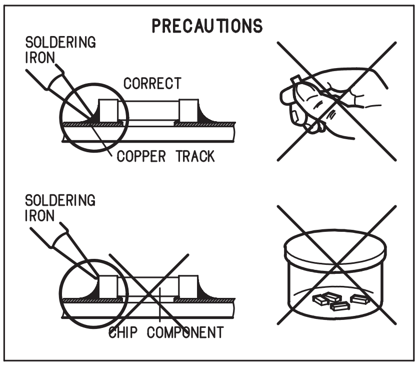
SBC426/426A Test disc 5 + 5A	4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz	4822 397 30155
SBC429 Audio Signals disc	4822 397 30184
Dolby Pro-logic Test Disc	4822 395 10216

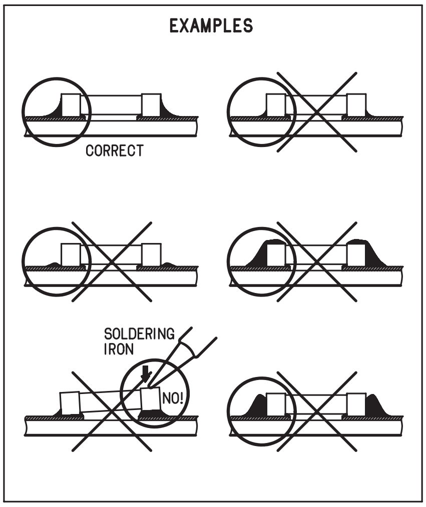
HANDLING CHIP COMPONENTS


GENERAL
CHIP COMPONENT
SOLDER
SOLDER
COPPER TRACK
P.C.B.
GLUE
SERVICE PACKAGE


DISMOUNTING
VACUUM PISTON
4822 395 10082
SOLDERING IRON
e.g. WELLER
solder tip PT-H7
A
SOLDERING IRON
SOLDER WICK
4822 321 40042
e.g. A PAIR OF TWEEZERS
HEATING
HEATING
B
SOLDERING IRON
CLEANING
SOLDER WICK
C


MOUNTING
e.g. A PAIR OF TWEEZERS
A
SOLDER
ø0.5-0.8mm
SOLDERING IRON
PRESSURE
SOLDERING TIME
<3 sec/side
SOLDER
ø0.5-0.8mm
B
PRESSURE
SOLDERING IRON


PRECAUTIONS
SOLDERING IRON
CORRECT
COPPER TRACK
SOLDERING IRON
CHIP COMPONENT


EXAMPLES
CORRECT
SOLDERING IRON
NO!

ESD

GB WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

F ATTENTION

Tous les IC et beaucoup d’autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu’aucune précaution n’est prise à leur manipulation.
Lors de réparations, s’assurer de bien être relié au même potentiel que la masse de l’appareil et enfiler le bracelet serti d’une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l’on utilise soient également à ce potentiel.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

NL WAARSCHUWING

Alle IC’s en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell’apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

GB ESD PROTECTION EQUIPMENT:

Complete Kit ESD3 (small tablemat, wristband, connection box, extention cable and earth cable)	4822 310 10671
Wristband tester	4822 344 13999

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol ⚠.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbool ⚠

F

Les normes de sécurité exigent que l’appareil soit remis à l’état d’origine et que soient utiliséés les piéces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués ⚠

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol ⚠ markiert.

I

Le norme di sicurezza esigono che l’apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenty di sicurezza sono marcati con ⚠

GB

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA.

CLASS 1
LASER PRODUCT

GB Warning !

Invisible laser radiation when open.
Avoid direct exposure to beam.

S Varning !

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

SF Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

DK Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

F

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

2.1 Lead Free Requirements

Pb(Lead) Free Solder

When soldering , be sure to use the pb free solder.

INDENTIFICATION:

Regardless of special logo (not always indicated)

one must treat all sets from **1 Jan 2005** onwards, according next rules:

Important note: In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (leaded/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
  - To reach at least a solder-temperature of 400°C,
  - To stabilize the adjusted temperature at the solder-tip
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free). If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
  - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
  - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website.
  Do not re-use BGAs at all.
- For sets produced before 1.1.2005 (except products of 2004), containing leaded solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website **www.atyourservice.ce.Philips.com** you find more information to:
  - BGA-de-/soldering (+ baking instructions)
  - Heating-profiles of BGAs and other ICs used in Philips-sets

  You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

2.2 Service Hints

CAUTION

CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE DRIVE ELECTRONICS WHEN CONNECTING A NEW DRIVE.THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

- **SWITCH OFF POWER SUPPLY**
- **ESD PROTECTION**

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

The following steps have to be done when replacing the defective loader :

1. Dismantling of the loader to access the ESD protection point if necessary.
2. **Solder the ESD protection point*.**
3. Disconnect flexfoil cable from the defective loader.
4. Put a paper clip on the flexfoil to short-circuit the contacts (fig.1)
5. Replace the defective loader with a new loader.
6. Remove paperclip from the flexfoil and connect it to the new loader.
7. Remove solder joint on the ESD protection point.

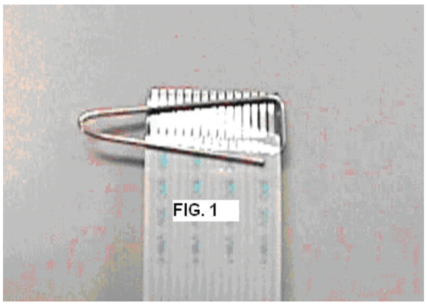
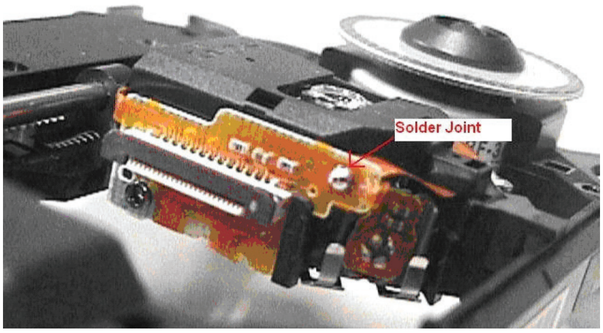


FIG. 1

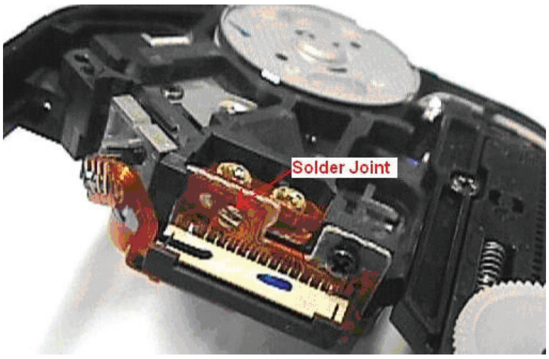
ATTENTION: The laser diode of this loader is protected against ESD by a solder joint which shortcircuits the laserdiode to ground. For proper functionality of the loader this solder joint must be remove **after** connection loader to the set.

Type 1



(ESD protection point is accessible from top of loader)

Type 2



(ESD protection point is accessible from bottom of the loader)

Only applicable for defective loader needed to be sent back to supplier for failure analysis and to support backcharging evidence.
This is also applicable for all partnership workshops.

3. Directions For Use

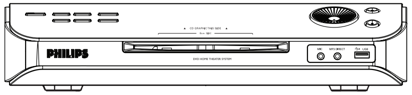
The following except of the Quick Use Guide serves as an introduction to the set.
The Complete Direction for the Use can be downloaded in different languages from the internet site of Philips Customer care Center: **www.p4c.philips.com**

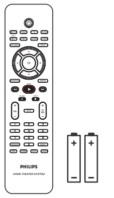
DVD HOME THEATER SYSTEM HTS6510

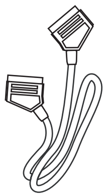
Quick Start Guide

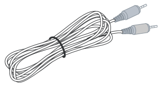
1 Connect
2 Set up
3 Enjoy

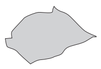
What's in the box?

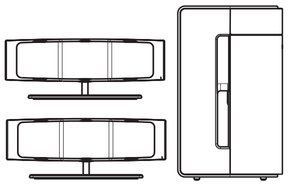

DVD system


Remote Control and 2 batteries

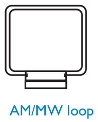

Scart cable

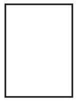

MP3 direct cable for portable audio player


Micro fibre cleaning cloth


2 SonoWave speakers and subwoofer

FM wire antenna


AM/MW loop antenna

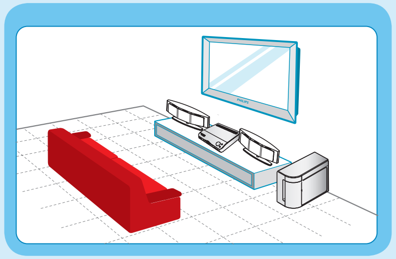

User Manual

PHILIPS

1 Connect

A Placement

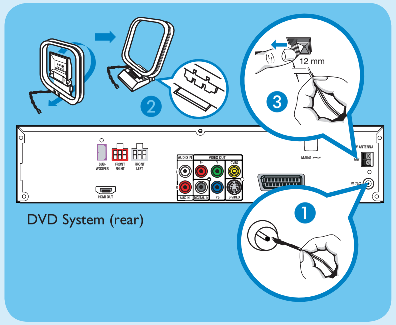
Proper speakers system placement is important to ensure optimum sound performance.



1. Place the SonoWave speakers at the normal listening ear level, equal distance from the TV and face straight ahead towards the listening area.
2. Place the subwoofer on the floor, at least one metre away from the TV.

B Connect the radio antennas

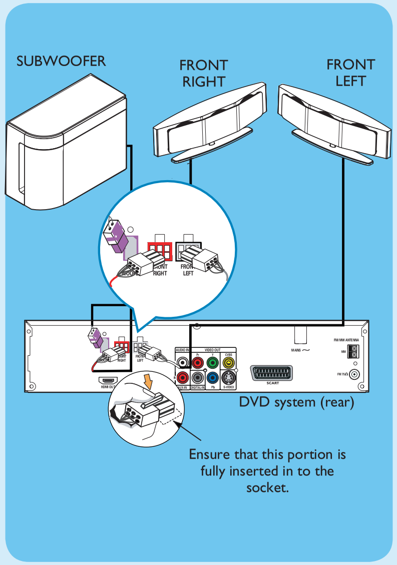
Keep the antennas away from the electronic devices to prevent unwanted interference.



1. Connect the FM antenna to the FM socket. Extend the wire and fix its end to the wall.
2. Unfold the AM/MW loop antenna and fix the claw into the slot.
3. Push the tabs and insert the wires into the AM/MW sockets.

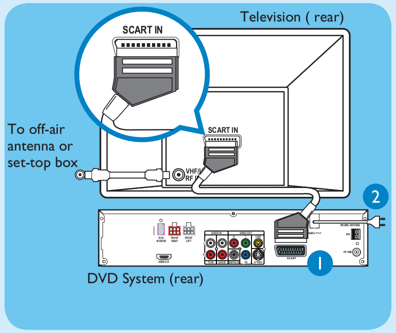
C Connect the SonoWave speakers and subwoofer

Connect the left speaker to the FRONT LEFT socket, right speaker to the FRONT RIGHT socket and the subwoofer to the SUBWOOFER socket at the rear of the DVD system.


SUBWOOFER
FRONT RIGHT
FRONT LEFT
DVD system (rear)
Ensure that this portion is fully inserted in to the socket.

2 Set up

D Connect the DVD system to TV

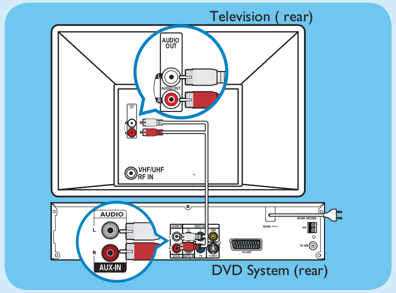


1. Use the supplied scart cable to connect the SCART socket on this DVD system to the SCART IN socket on your TV.
2. Plug in the power cable from the DVD system to an AC power outlet.

Note It is important to connect the DVD system directly to your TV. When watching the TV programmes, you can press **TV** on the remote control to get the sound output from the speakers system.

E Connect the audio from other device to DVD system (optional)

Use the red and white audio cables (not supplied) to connect the AUX IN (R/L) sockets on this DVD system to the AUDIO output sockets on your Audio/Video device (for example, DVD recorder, VCR).



Note Press **AUX/DI** on the remote control to get the sound output from the speakers system when watching the TV programme.

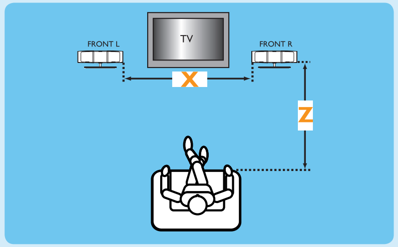
A Finding the viewing channel

1. Press **STANDBY ON** on the DVD system.
2. Press **SOURCE** on the DVD system until "DISC" appears on the display panel.
3. Turn on the TV. Use the TV's remote control to select the correct viewing channel for the DVD system.
   You should see the blue DVD background on the TV.

Note To search for the correct viewing channel, press the Channel Down button on the TV's remote control repeatedly (or AV, SELECT, ⊕ button) until you see the blue DVD background.

B Setting up the SonoWave speakers

1. Press and hold **SOUND** on the remote control to enter the SonoWave speaker settings mode.
2. Use ◀ ▶ keys to view the available settings (ROOM ACOUSTICS, SPEAKER DISTANCE, LISTENING POSITION) and press **OK** to select.
3. Use ◀ ▶ keys to select a most suitable predefined setting and press **OK** to confirm.



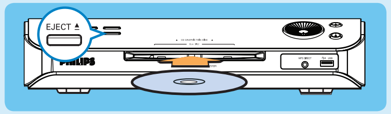
ROOM ACOUSTICS
HARD - for concrete/glass walls.
SOFT - for wooden walls.
SPEAKER DISTANCE
NEAR - 'X' is less than 1 metre.
DEFAULT - 'X' is between 1~2.5 metres.
FAR - 'X' is more than 2.5 metres.
LISTENING POSITION
NEAR - 'Z' is less than 1.5 metre.
DEFAULT - 'Z' is between 1.5~2.5 metres.
FAR - 'Z' is more than 2.5 metres.

Note The underlined options are the default setting.

3 Enjoy

Start disc playback

1. Insert a disc into the disc slot with the disc label facing up.

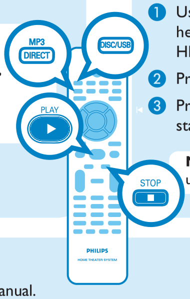


2. Playback will start automatically.
3. If the disc menu appears, use ▼▲ keys to select an option in the menu and press **PLAY ▶** to start playback.

- To enjoy the powerful surround sound from the SonoWave speakers, press **SURROUND** to turn on the multi-channel surround mode.

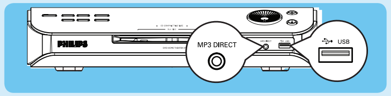
4. Press **STOP ■** to stop playback.
5. Press **EJECT ≜** to remove the disc.

Note When you press PLAY button again, the playback will resume from where it last stopped. To start playback from the beginning, you have to press STOP button two times to cancel the resume mode, then press PLAY button.



Playback from the USB

1. Insert your USB device into the USB port and wait for the message to appear on the screen.
2. Press **DISC/USB** to access the contents on your USB device.
3. Press **OK** to start playback.
4. To stop playback, press **DISC/USB** again to switch to 'DISC' mode. You can unplug your USB device now.



Playback from the portable audio/HDD player

1. Use the supplied MP3 direct cable to connect the headphone output socket on your portable audio/HDD player to the MP3 DIRECT socket.
2. Press **MP3 DIRECT** on the remote control.
3. Press PLAY on your portable audio/HDD player to start playback.

Note You can only control the playback features using your portable audio/HDD player.

Troubleshooting

For more troubleshooting tips, see the user manual.

No picture.
- Press DISC/USB button on the remote control.
- Check the connection to the TV and ensure the plugs are firmly in place.

No sound.
- Check the speaker connections and settings.
- Check the audio connections and press SOURCE button to select the correct input source.
- Press SURROUND button to turn on the multi-channel surround output.

The DVD system does not work.
- Disconnect the power cord from the power outlet for a few minutes. Reconnect the power cord and try again.

Need help?

User Manual
See the user manual that cames with your Philips DVD System

Online
Go to www.philips.com/support

Be responsible
Respect copyrights

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All rights reserved.
12 NC 3139 245 21781
www.philips.com

4. Dismantling Instructions

4.1 Dismantling of the Tray Cover

1) Loosen 5 screws and remove Panel Left (P129) & Panel Right (Pos 130) by sliding the panels forward as shown in Figure 1.

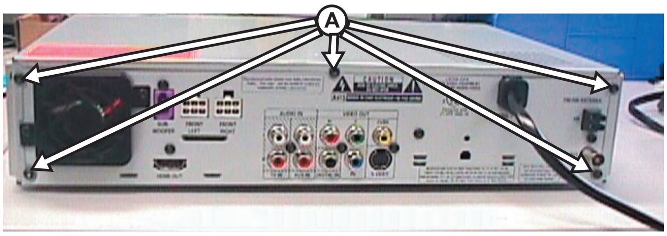


Figure 4-1

2) Loosen 1 screw each on the left & right side to remove the Cover Top as shown in Figure 4-2.

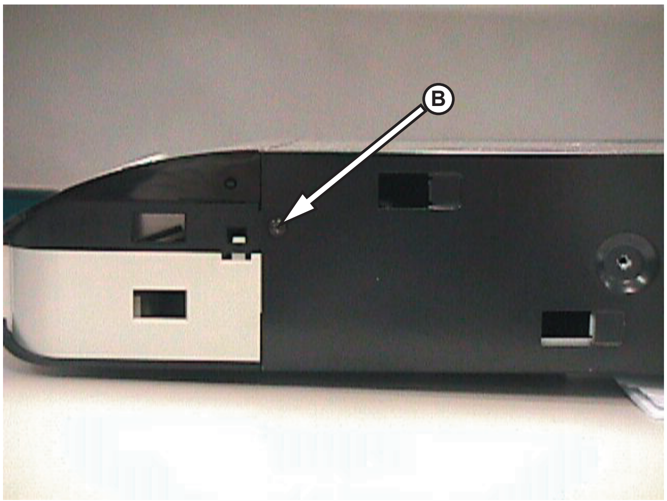


Figure 4-2

4.2 Dismantling of the Front Assy, Amplifier Board & DVD Loader.

1) Release 4 snap hooks to remove the Front Board.
   - 1 snap hook each on the left & right side
   - 2 snap hooks on the bottom side

2) Loosen 2 screws (See Figure 4-3) to remove the Cab Front Base (Pos 103).

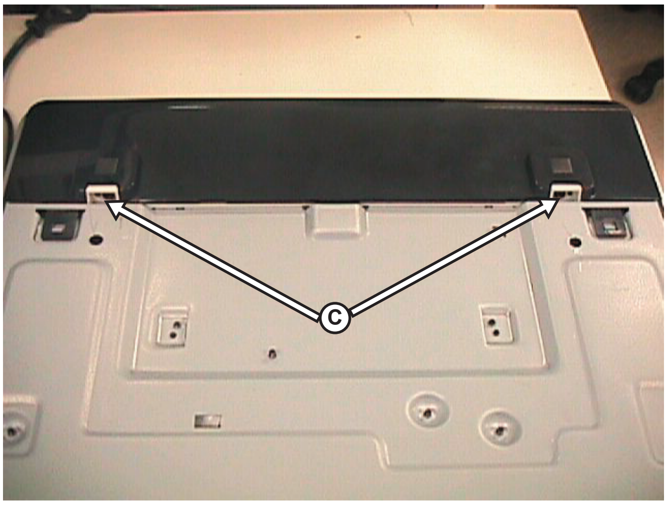


Figure 4 3

3) Loosen 4 screws (See Figure 4-4) to remove the Front Assy.

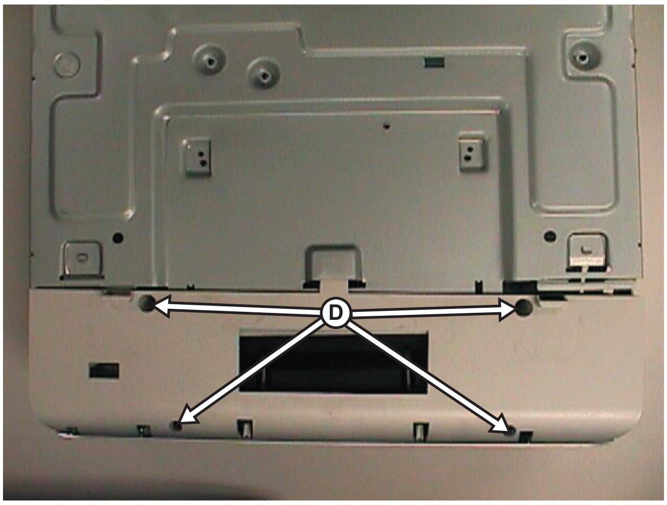


Figure 4-4

4) Loosen 4 screws (See Figure 4-5) to remove the DVD Loader.

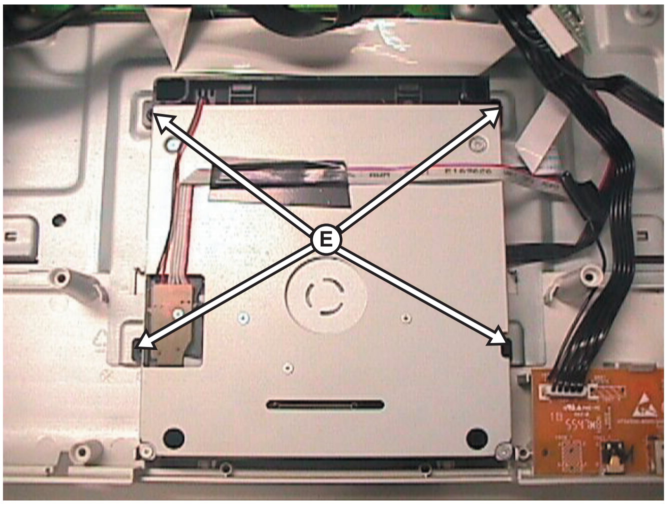


Figure 4 5

5) Loosen 4 screws (See Figure 4-6) to remove Amplifier Board.

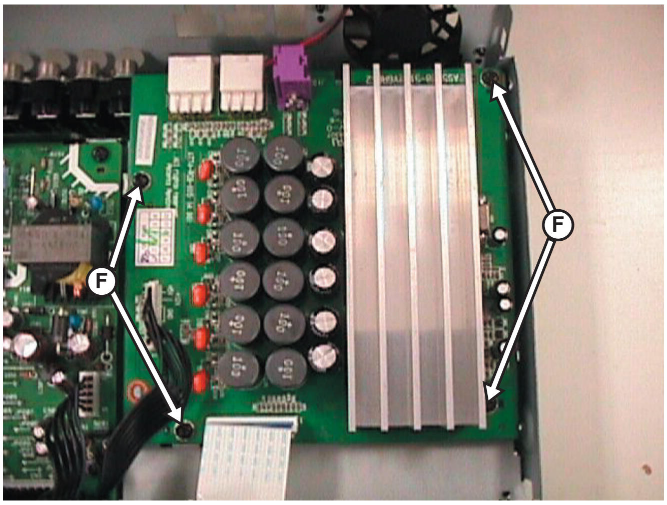


Figure 4-6

6) Loosen 4 screws (See Figure 4-7) to remove PSU Module.

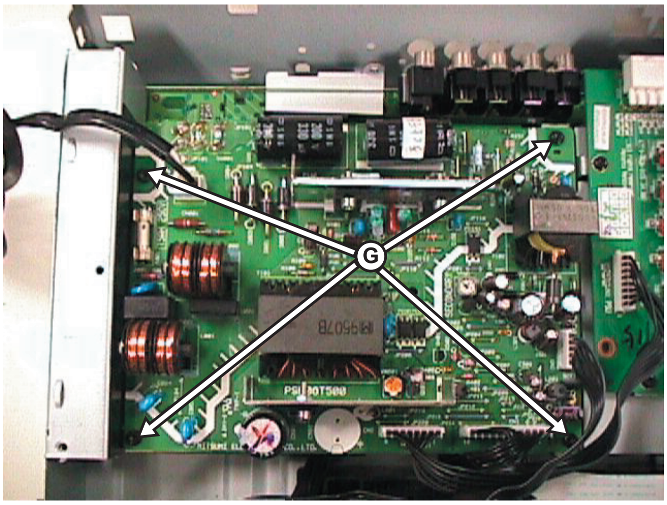
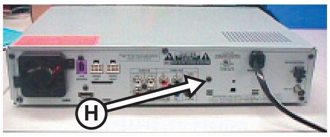


Figure 4-7

4.3 Dismantling of the PCBAS 9.1 Board, Tuner Module & AV Board.

1) Loosen 2 screws (See Figure 4-8 & Figure 4-9) to remove the Frame PSU (Pos 162).



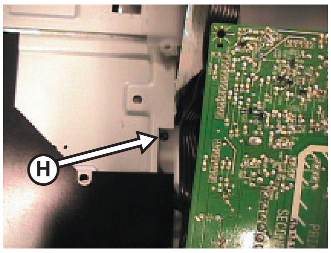


Figure 4-8

Figure 4-9

2) Loosen 1 screw (See Figure 4-10) to remove the Tuner Module.

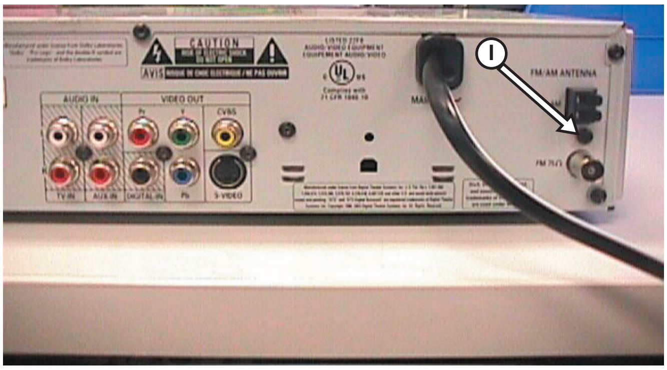
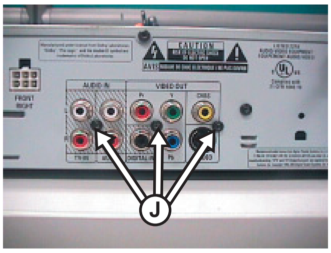

I
CAUTION
AUDIO IN
VIDEO OUT
FM/AM ANTENNA

Figure 4-10

3) Loosen 5 screws (See Figure 4-11 & Figure 4-12) to remove the AV Board.



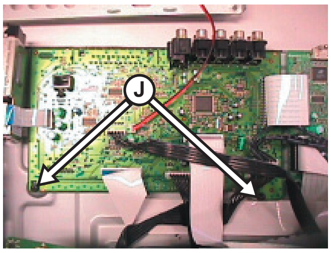
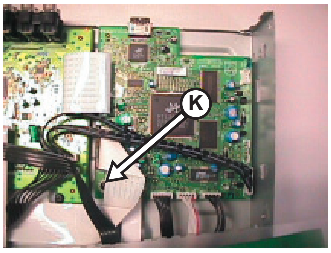


Figure 4-11

Figure 4-12

4) Loosen 2 screws (See Figure 4-13 & Figure 4-14) to remove PBCAS 9.1 Board.



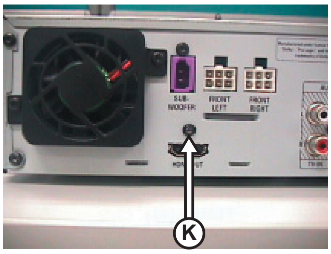

K
SUB-WOOFER
FRONT LEFT
FRONT RIGHT

Figure 4-13

Figure 4-14

4.4 Service Position

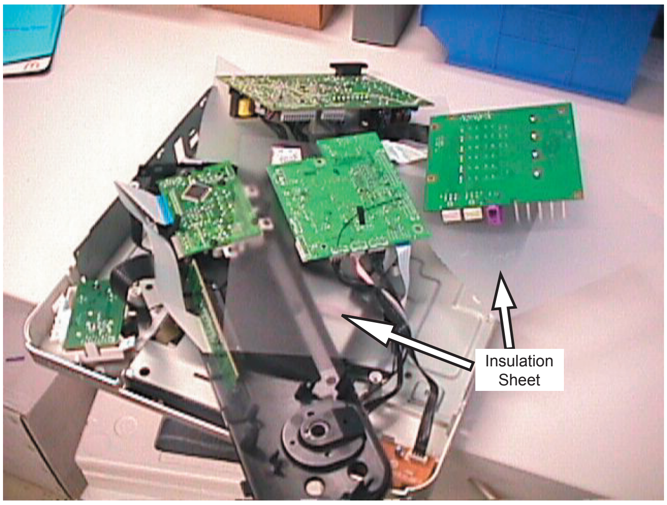
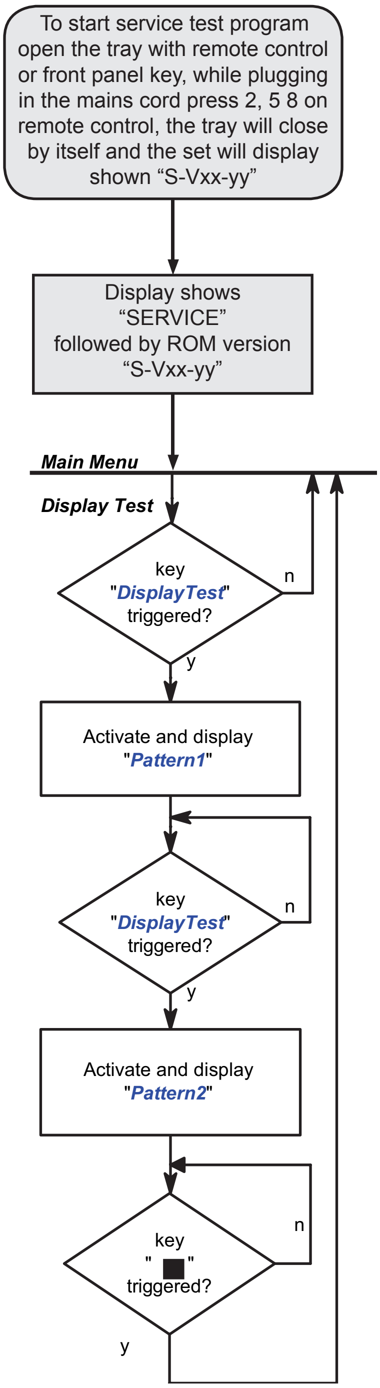

Insulation Sheet

Figure 4-15

5. Service Test Program


To start service test program open the tray with remote control or front panel key, while plugging in the mains cord press 2, 5 8 on remote control, the tray will close by itself and the set will display shown "S-Vxx-yy"
Display shows "SERVICE" followed by ROM version "S-Vxx-yy"
Main Menu
Display Test
key "DisplayTest" triggered?
n
y
Activate and display "Pattern1"
key "DisplayTest" triggered?
n
y
Activate and display "Pattern2"
key " ■ " triggered?
n
y

S	refers to Service Mode
V	refers to Version
xx	refers to Software version number of BEA (counting up from 01 to 99)
yy	refers to Software version number of Front uP (counting up from 01 to 99)

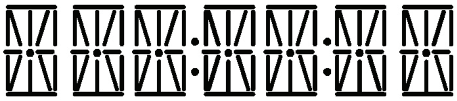
5.1 Display Test

Purpose:
This test is used to check the driving circuits, the display and whether there are any short-circuits, open-circuits or any other defects.

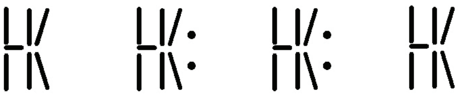
Player:

Following display patterns are used to test the display and its connections to µP.

Pattern 1: *Default: All display control pins are ON*
- to check the open-circuits



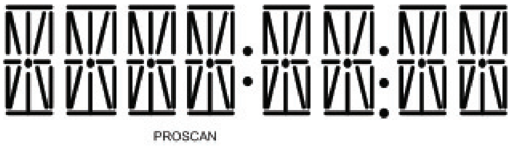
Pattern 2: *Alternate display control pins are on (Test Pattern: 0x55)*
- to check the short-circuits on Data port



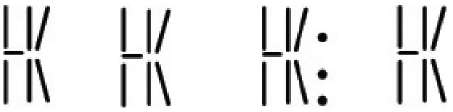
Receiver:

Following display patterns are used to test the display and its connections to µP.

Pattern 1: *Default: All display control pins are ON*
- to check the open-circuits



Pattern 2: *Alternate display control pins are on (Test Pattern: 0x55)*
- to check the short-circuits on Data port



5.1.1 Reprogramming of DVD version Matrix

After repair, the customer setting and region code may be lost. Reprogramming will put the set back in the state in which it has left the factory, ie. with the default setting and the allowed region code.

Model	Region	Region Code	TV Type
HTS 6510/05	UK/Ireland	2	PAL
HTS 6510/12	Europe	5	PAL

To reprogram do as follows:

1) Power up the set and select DISC source.
2) Open tray by press “OPEN/CLOSE” button on the set or press and hold “STOP” button on the RC.
3) Press the following buttons on the Remote Control:
   <9> <9> <9> <9> <AUDIO> <1> ....for HTS 6510/12
   <9> <9> <9> <9> <AUDIO> <7> ....for HTS 6510/05
4) The display shows **‘YYYY-ZZ’** and the tray will close.
   YYYY = model number (eg. 8300, 8500, etc.)
   ZZ = slash stroke version (eg. 01, 69, etc.)

5.1.2 Procedure for check Software version

1) Power up the set and select DISC source.
2) Open tray by press “OPEN/CLOSE” button on the set or press and hold “STOP” button on the RC.
3) Press “DISPLAY” button on the Remote control.
4) The TV screen will shows:

PPPP-Vxx YYYYY-ZZ
SERVO: GGGGGGGG REG:DD

PPPP = HTS 3300MKII
xx = version number
YYYYY = model # - 3300D
ZZ = stroke version (12, 51, 05, 98, 55, 51K)
GGGGGGGG = version for servo code

5.1.3 Burning of firmware

1. Unzip the zip-archive attached with this service information.
2. Start the CD burning software and create a new CD Project (Data disc) with the following settings:
   a. File System: ISO9660
   b. Format: MODE 2/XA
   c. Recording format: Single Session (Track at once), Finalized CD
3. Place the content of the zip-archive into the root directory of the new CD project.
4. Burn the data onto a blank CDR or CDRW.

Note: ISO9660 is mandatory, UDF discs are not supported!
The final CDROM must not contain any other data except the file from the zip-archive.

5.1.4 Procedure to upgrade the firmware

1. Power up the set and open tray.
2. Insert the prepared Upgrade CDROM and close the tray.
3. The set will display:

   LOAD -> MULTICH ->…………. ->UPG END.
   The whole process takes less than 2 minutes.

Note: Do not press any button or interrupt the main supply upgrading process,Otherwise the set may become defective.

4. When the upgrade is completed, the tray will close automatic.
5. The tray will close and the set will go to Standby mode automatically when the upgrade process is completed.

5.1.5 Procedure to check the firmware version to confirm upgrading

1. Power up the set and open tray.
2. Press the <Menu Display> button on the Remote Control.
3. The firmware version will be displayed on the top left hand corner of the OSD.

5.1.6 Trade Mode

Trade mode is a feature that will block all set keys when enabled. It is for dealers to prevent customers fromremoving disc, changing source etc using the set keys.Rotary and Remote Control (RC) keys are still allowed inTrade mode.

To activate Trade Mode:

1) Power up the set and select DISC source.
2) Open tray by press “OPEN/CLOSE” button on the set or press and hold “STOP” button on the RC.
3) Then press buttons <2> <5> <9> on the RC.
4) The display shows **‘TRA ON’** and the tray will close.
Trade Mode is now enabled.

To deactivate Trade Mode:

1) Power up the set and select DISC source.
2) Open tray by press and hold “STOP”button on the RC.
3) Then press buttons <2> <5> <9> on the RC.
4) The display shows **‘TRA OFF’** and the tray will close.
Trade Mode is now disabled.

5.1.7 Procedure to change Tuner Grid (/98, /55 only)

❶ Press **SOURCE** to select “FM” or “MW”.

❷ Press **STANDBY ON** to switch the DVD system to standby mode.

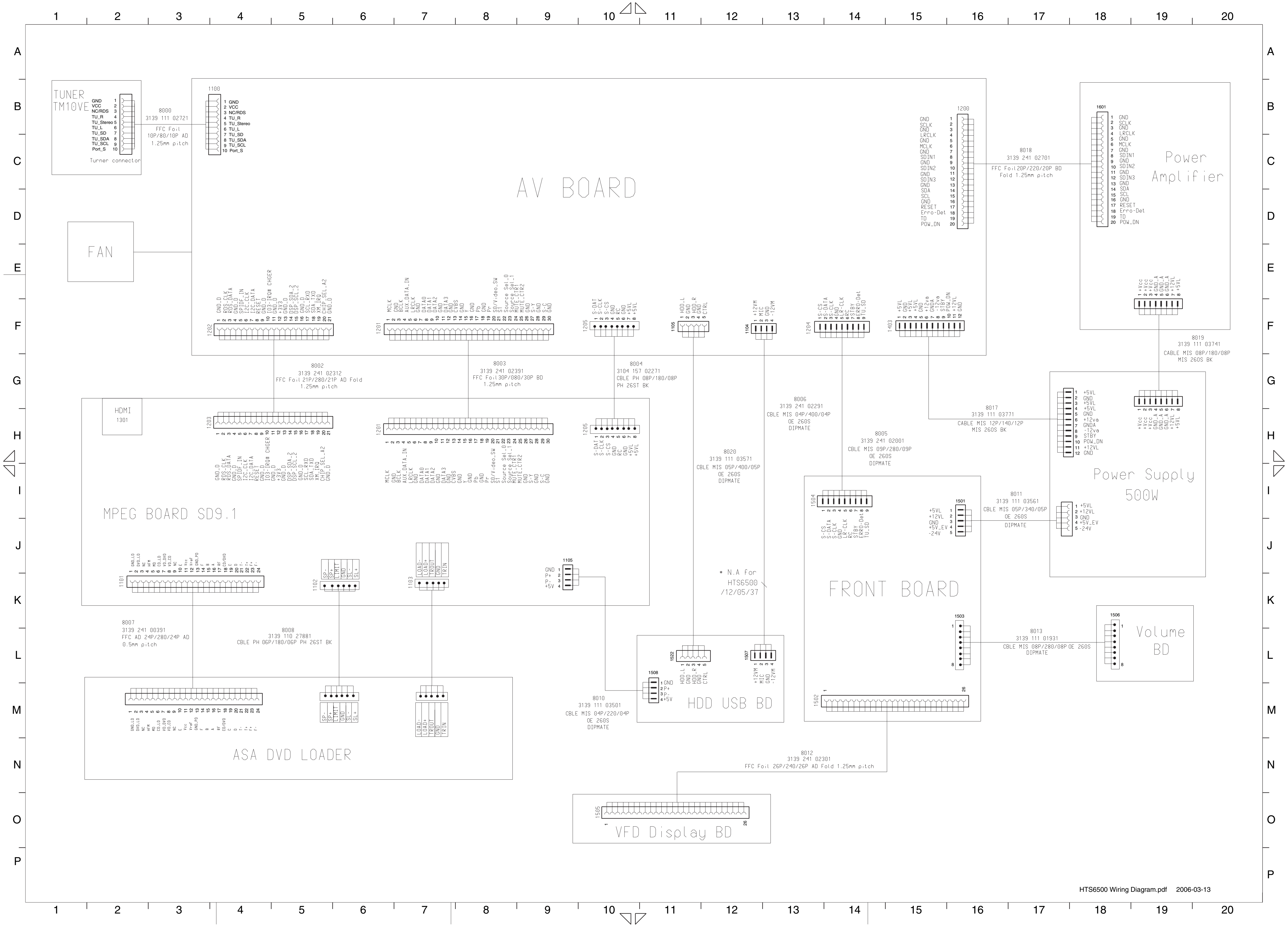
❸ Press **STANDBY ON** again to turn on the DVD system and hold down ⏮ button on the front panel.
➜ The display will show "GRID 9" or "GRID 10".

Helpful Hint:
– GRID 9 and GRID 10 indicate that the tuning grid is in step of 9 kHz and 10 kHz respectively.

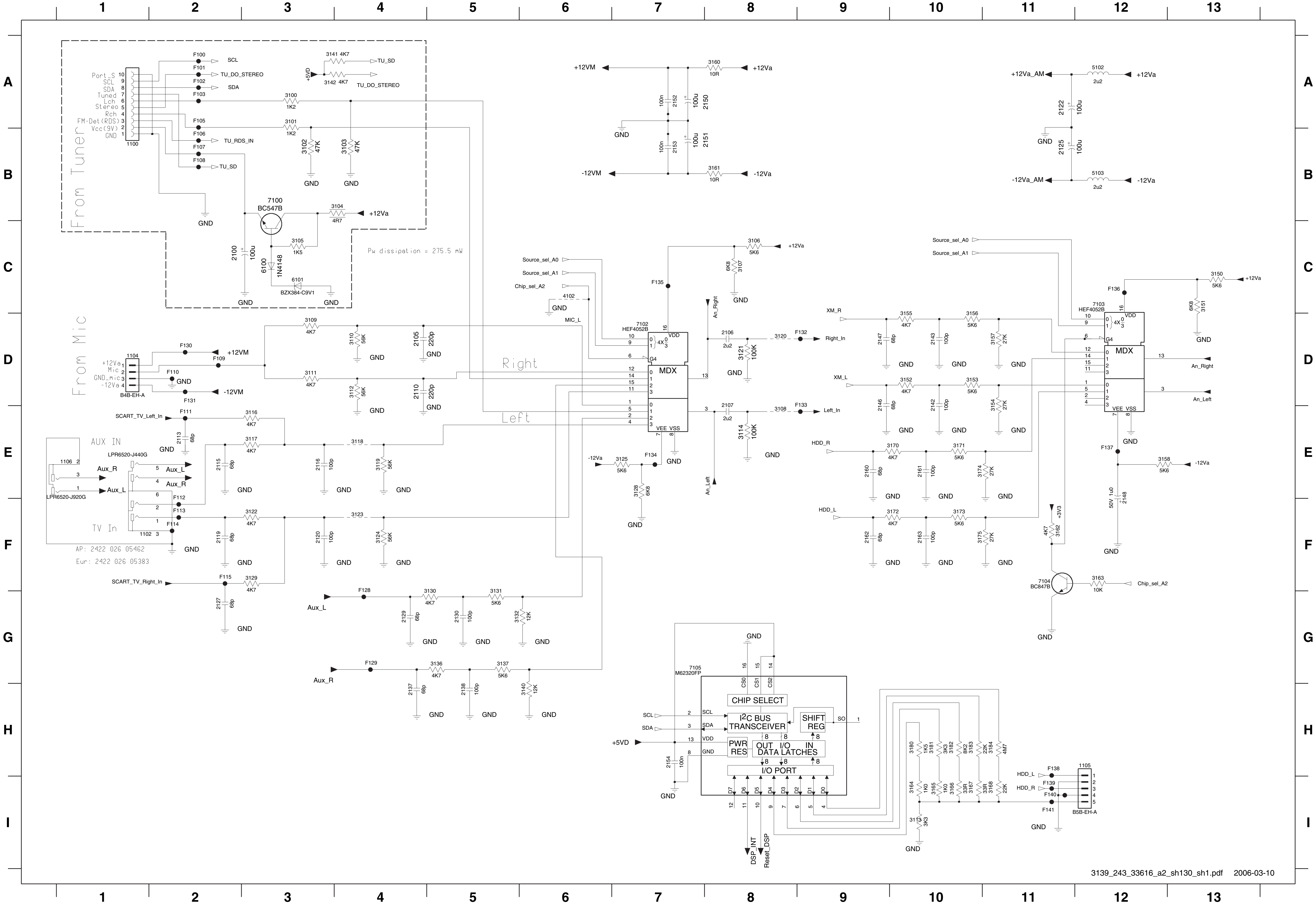
Note: Repeating the same action will toggle back to its previous tuning grid setting.

Notes:

Wiring Diagram


TUNER TM10VE
GND VCC NC/RDS TU_R TU_Stereo TU_L TU_SD TU_SDA TU_SCL Port_S
Turner connector
8000
3139 111 02721
FFC Foil 10P/80/10P AD 1.25mm pitch
1100
AV BOARD
FAN
1200
8018
3139 241 02701
FFC Foil 20P/220/20P BD Fold 1.25mm pitch
1601
Power Amplifier
GND SCLK GND LRCLK GND MCLK GND SDIN1 GND SDIN2 GND SDIN3 GND SDA SCL GND RESET Erro-Det TD POW_DN
1202
1201
1205
1105
1104
1204
1403
8002
3139 241 02312
FFC Foil 21P/280/21P AD Fold 1.25mm pitch
8003
3139 241 02391
FFC Foil 30P/080/30P BD 1.25mm pitch
8004
3104 157 02271
CBLE PH 08P/180/08P PH 26ST BK
8019
3139 111 03741
CABLE MIS 08P/180/08P MIS 260S BK
HDMI 1301
1203
MPEG BOARD SD9.1
8006
3139 241 02291
CBLE MIS 04P/400/04P OE 260S DIPMATE
8017
3139 111 03771
CABLE MIS 12P/140/12P MIS 260S BK
8020
3139 111 03571
CBLE MIS 05P/400/05P OE 260S DIPMATE
8005
3139 241 02001
CBLE MIS 09P/280/09P OE 260S DIPMATE
Power Supply 500W
1504
1501
8011
3139 111 03561
CBLE MIS 05P/340/05P OE 260S DIPMATE
+5VL +12VL GND +5V_EV -24V
1101
1102
1103
1105
GND P+ P- +5V
• N.A for HTS6500 /12/05/37
FRONT BOARD
1503
8013
3139 111 01931
CBLE MIS 08P/280/08P OE 260S DIPMATE
1506
Volume BD
8007
3139 241 00391
FFC AD 24P/280/24P AD 0.5mm pitch
8008
3139 110 27881
CBLE PH 06P/180/06P PH 26ST BK
1522
1507
1508
HDD USB BD
8010
3139 111 03501
CBLE MIS 04P/220/04P OE 260S DIPMATE
1502
ASA DVD LOADER
SP- SP+ LIMIT GND SL- SL+
LOAD- LOAD+ TROUT GND TRIN
8012
3139 241 02301
FFC Foil 26P/240/26P AD Fold 1.25mm pitch
1505
VFD Display BD
HTS6500 Wiring Diagram.pdf 2006-03-13

AV Board: Circuit Diagram (Part 1)


From Tuner
Port_S
SCL
SDA
Tuned
Lch
Stereo
Rch
FM-Det(RDS)
Vcc(9V)
GND
1100
F100
SCL
F101
TU_DO_STEREO
F102
SDA
F103
F105
F106
TU_RDS_IN
F107
F108
TU_SD
3141 4K7
3142 4K7
+5VD
TU_SD
TU_DO_STEREO
3100
1K2
3101
1K2
3102
47K
3103
47K
GND
7100
BC547B
3104
4R7
+12Va
3105
1K5
2100
100u
6100
1N4148
6101
BZX384-C9V1
Pw dissipation = 275.5 mW
From Mic
1104
+12Va
Mic
GND_mic
-12Va
B4B-EH-A
F130
+12VM
F109
F110
F131
-12VM
3109
4K7
3110
56K
2105
220p
3111
4K7
3112
56K
2110
220p
Right
Left
SCART_TV_Left_In
F111
3116
4K7
2113
68p
AUX IN
1106
Aux_R
Aux_L
LPR6520-J440G
LPR6520-J920G
3117
4K7
3118
2115
68p
2116
100p
3119
56K
F112
F113
F114
TV In
1102
3122
4K7
3123
2119
68p
2120
100p
3124
56K
AP: 2422 026 05462
Eur: 2422 026 05383
SCART_TV_Right_In
F115
3129
4K7
2127
68p
F128
Aux_L
3130
4K7
3131
5K6
2129
68p
2130
100p
3132
12K
F129
Aux_R
3136
4K7
3137
5K6
2137
68p
2138
100p
3140
12K
+12VM
3160
10R
+12Va
2152
100n
2150
100u
2153
100n
2151
100u
-12VM
3161
10R
-12Va
3106
5K6
3107
6K8
Source_sel_A0
Source_sel_A1
Chip_sel_A2
4102
MIC_L
F135
An_Right
7102
HEF4052B
VDD
4X
MDX
G4
VEE VSS
2106
2u2
3120
F132
Right_In
3121
100K
2107
2u2
3108
F133
Left_In
3114
100K
3125
5K6
F134
3128
6K8
An_Left
7103
HEF4052B
F136
3150
5K6
3151
6K8
XM_R
3155
4K7
3156
5K6
2147
68p
2143
100p
3157
27K
XM_L
3152
4K7
3153
5K6
2146
68p
2142
100p
3154
27K
An_Right
An_Left
HDD_R
3170
4K7
3171
5K6
2160
68p
2161
100p
3174
27K
HDD_L
3172
4K7
3173
5K6
2162
68p
2163
100p
3175
27K
F137
3158
5K6
2148
1u0
50V
+3V3
3162
4K7
7104
BC847B
3163
10K
Chip_sel_A2
+12Va_AM
5102
2u2
+12Va
2122
100u
2125
100u
-12Va_AM
5103
2u2
-12Va
7105
M62320FP
CS0
CS1
CS2
CHIP SELECT
SCL
SDA
VDD
GND
I²C BUS TRANSCEIVER
SHIFT REG
SO
PWR RES
OUT I/O IN DATA LATCHES
I/O PORT
D7 D6 D5 D4 D3 D2 D1 D0
+5VD
2154
100n
DSP_INT
Reset_DSP
3180 1K5
3181 3K3
3182 8K2
3183 22K
3184 4M7
3164 1K0
3165 1K0
3166 33R
3167 33R
3168 22K
3113 3K3
HDD_L
HDD_R
F138
F139
F140
F141
1105
B5B-EH-A
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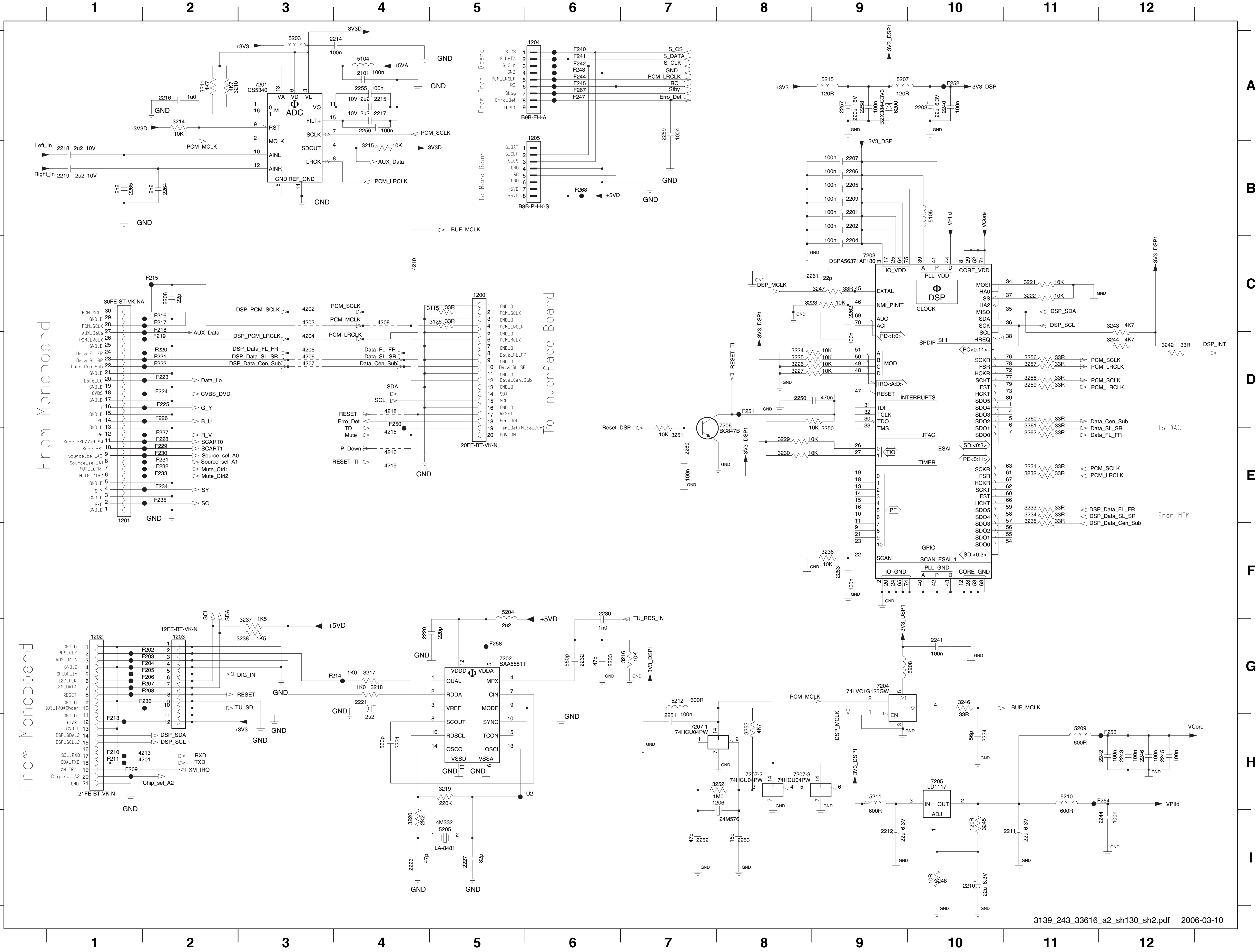
1100	B1
1102	F1
1104	D1
1105	H12
1106	E1
2100	C2
2105	D4
2106	D8
2107	E8
2110	D4
2113	E2
2115	E2
2116	E3
2119	F2
2120	F3
2122	A11
2125	B11
2127	G2
2129	G4
2130	G5
2137	H4
2138	H5
2142	D10
2143	D10
2146	D9
2147	D9
2148	E12
2150	A8
2151	B8
2152	A7
2153	B7
2154	H7
2160	E9
2161	E10
2162	F9
2163	F10
3100	A3
3101	A3
3102	B3
3103	B4
3104	B4
3105	C3
3106	C8
3107	C8
3108	E8
3109	D3
3110	D4
3111	D3
3112	D4
3113	I10
3114	E8
3116	E3
3117	E3
3118	E4
3119	E4
3120	D8
3121	D8
3122	F3
3123	F4
3124	F4
3125	E7
3128	E7
3129	F3
3130	G5
3131	G5
3132	G5
3136	G5
3137	G5
3140	H6
3141	A3
3142	A3
3150	C13
3151	C13
3152	D10
3153	D10
3154	D11
3155	D10
3156	D10
3157	D11
3158	E12
3160	A8
3161	B8
3162	F11
3163	F12
3164	I10
3165	I10
3166	I10
3167	I10
3168	I11
3170	E10
3171	E10
3172	F10
3173	F10
3174	E10
3175	F10
3180	H10
3181	H10
3182	H10
3183	H10
3184	H11
4102	C6
5102	A12
5103	B12
6100	C3
6101	C3
7100	B3
7102	D7
7103	C12
7104	F11
7105	G7
F100	A2
F101	A2
F102	A2
F103	A2
F105	A2
F106	B2
F107	B2
F108	B2
F109	D2
F110	D2
F111	E2
F112	F2
F113	F2
F114	F2
F115	F2
F128	G4
F129	G4
F130	D2
F131	D2
F132	D9
F133	E9
F134	E7
F135	C7
F136	C12
F137	E12
F138	H11
F139	I11
F140	I11
F141	I11

AV Board: Circuit Diagram (Part 2)


1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H I
7201 CS5340 ADC
Left_In
Right_In
PCM_MCLK
PCM_SCLK
PCM_LRCLK
AUX_Data
3V3D
+3V3
+5VA
GND
1204 B9B-EH-A
From Front Board
1205 B8B-PH-K-S
To Mono Board
S_CS
S_DATA
S_CLK
PCM_LRCLK
RC
Stby
Erro_Det
+5VD
BUF_MCLK
1201 30FE-ST-VK-NA
From Monoboard
DSP_PCM_SCLK
DSP_PCM_LRCLK
DSP_Data_FL_FR
DSP_Data_SL_SR
DSP_Data_Cen_Sub
Data_Lo
CVBS_DVD
G_Y
B_U
R_V
SCART0
SCART1
Source_sel_A0
Source_sel_A1
Mute_Ctrl1
Mute_Ctrl2
SY
SC
1200 20FE-BT-VK-N
To Interface Board
SDA
SCL
RESET
Erro_Det
TD
Mute
P_Down
RESET_TI
7203 DSPA56371AF180
DSP
IO_VDD
PLL_VDD
CORE_VDD
EXTAL
NMI_PINIT
CLOCK
ADO
ACI
SPDIF
SHI
MOD
RESET
INTERRUPTS
JTAG
ESAI
TIMER
GPIO
SCAN
ESAI_1
IO_GND
PLL_GND
CORE_GND
DSP_MCLK
DSP_SDA
DSP_SCL
DSP_INT
To DAC
From MTK
Reset_Dsp
7206 BC847B
VPlld
VCore
3V3_DSP
3V3_DSP1
1202
1203 12FE-BT-VK-N
21FE-BT-VK-N
DIG_IN
TU_SD
RXD
TXD
XM_IRQ
Chip_sel_A2
7202 SAA6581T
TU_RDS_IN
5205 4M332 LA-8481
U2
7204 74LVC1G125GW
7207-1 74HCU04PW
7207-2 74HCU04PW
7207-3 74HCU04PW
1206 24M576
7205 LD1117
+5VD

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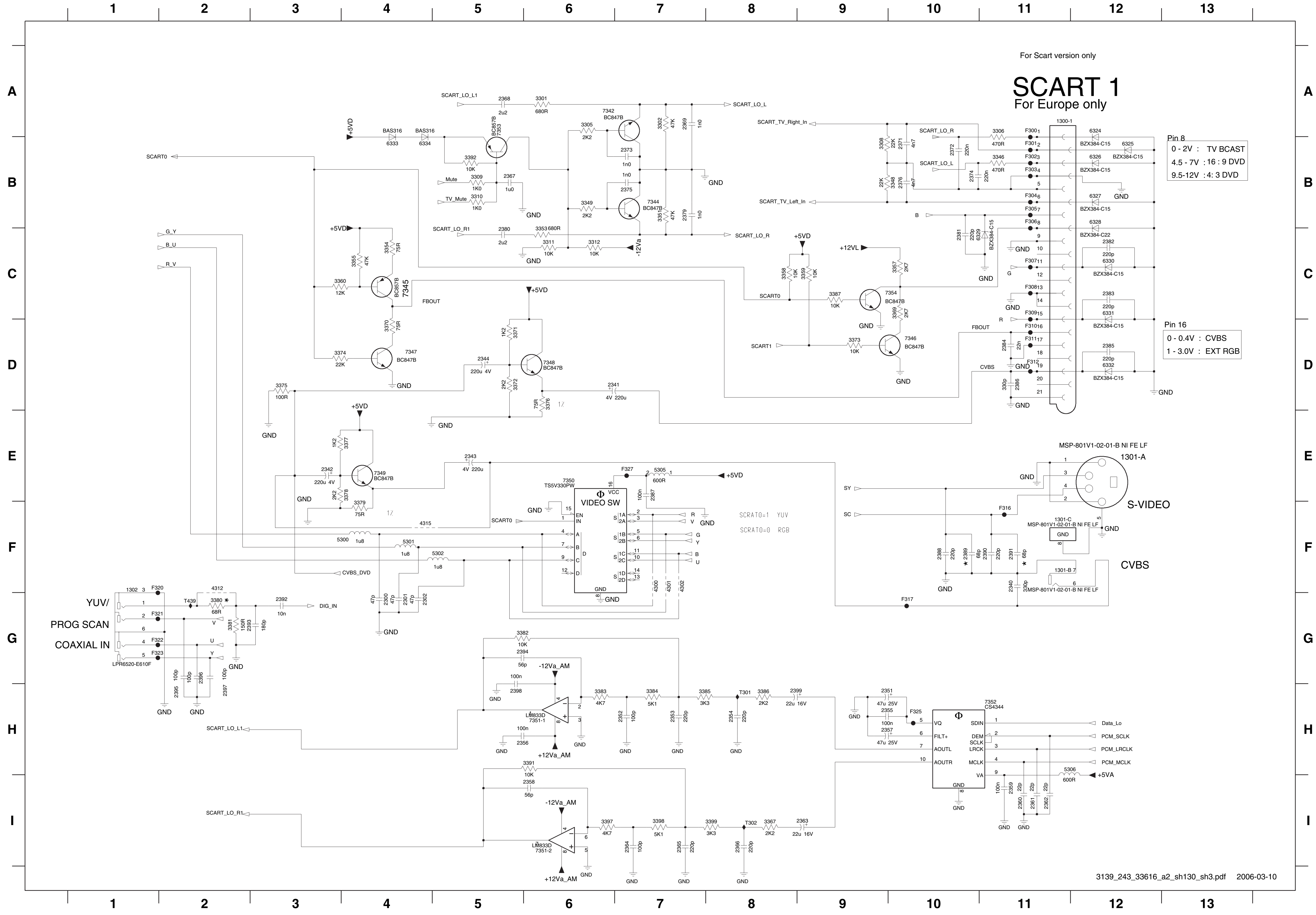
U2	H6
1200	C5
1201	E1
1202	G1
1203	G2
1204	A6
1205	A6
1206	H8
2101	A4
2201	B9
2202	B9
2203	A10
2204	C9
2205	B9
2206	B9
2207	B9
2208	C2
2209	B9
2210	I10
2211	I11
2212	I9
2214	A4
2215	A4
2216	A2
2217	A4
2218	B1
2219	B1
2220	G4
2221	G4
2226	I4
2227	I5
2230	F6
2231	H4
2232	G6
2233	G6
2234	H10
2240	A10
2241	G10
2242	H12
2243	H12
2244	I12
2245	H12
2246	H12
2250	D8
2251	H7
2252	I7
2253	I8
2255	A4
2256	A4
2257	A9
2258	A9
2259	A7
2260	E7
2261	C9
2262	C9
2263	F9
2264	B2
2265	B1
3115	C5
3126	C5
3210	A2
3211	A2
3214	A2
3215	B4
3216	G7
3217	G4
3218	G4
3219	H5
3220	I4
3221	C11
3222	C11
3223	C8
3224	D8
3225	D8
3226	D8
3227	D8
3229	E8
3230	E8
3231	E11
3232	E11
3233	E11
3234	E11
3235	F11
3236	F9
3237	G3
3238	G3
3242	D12
3243	C12
3244	D12
3245	I10
3246	G10
3247	C9
3248	I10
3250	E9
3251	E7
3252	H8
3253	H8
3256	D11
3257	D11
3258	D11
3259	D11
3260	D11
3261	E11
3262	E11
4201	H2
4202	C3
4203	C3
4204	D3
4205	D3
4206	D3
4207	D3
4208	C4
4210	C4
4213	H2
4215	E4
4216	E4
4218	D4
4219	E4
5104	A4
5105	B10
5203	A3
5204	F5
5205	I5
5207	A9
5208	G10
5209	H11
5210	H11
5211	H9
5212	G7
5215	A9
6200	A9
7201	A3
7202	G5
7203	C9
7204	G9
7205	H10
7206	E8
7207-1	H7
7207-2	H8
7207-3	H8
F202	G2
F203	G2
F204	G2
F205	G2
F206	G2
F207	G2
F208	G2
F209	H1
F210	H1
F211	H1
F213	H1
F214	G4
F215	C2
F216	C2
F217	C2
F218	D2
F219	D2
F220	D2
F221	D2
F222	D2
F223	D2
F224	D2
F225	D2
F226	D2
F227	E2
F228	E2
F229	E2
F230	E2
F231	E2
F232	E2
F233	E2
F234	E2
F235	E2
F236	G2
F240	A6
F241	A6
F242	A6
F243	A6
F244	A6
F245	A6
F247	A6
F250	D4
F251	D8
F252	A10
F253	H12
F254	H12
F258	G5
F267	A6
F268	B6

AV Board: Circuit Diagram (Part 3)


For Scart version only
SCART 1
For Europe only
1300-1
Pin 8
0 - 2V : TV BCAST
4.5 - 7V : 16 : 9 DVD
9.5-12V : 4: 3 DVD
Pin 16
0 - 0.4V : CVBS
1 - 3.0V : EXT RGB
SCART_LO_L1
SCART_LO_L
SCART_LO_R1
SCART_LO_R
SCART_TV_Right_In
SCART_TV_Left_In
SCART0
SCART1
Mute
TV_Mute
FBOUT
CVBS
G_Y
B_U
R_V
+5VD
+12VL
-12Va
GND
BAS316
BC857B
BC847B
BZX384-C15
BZX384-C22
7345
7350
TS5V330PW
VIDEO SW
VCC
SCRAT0=1 YUV
SCRAT0=0 RGB
CVBS_DVD
DIG_IN
YUV/
PROG SCAN
COAXIAL IN
LPR6520-E610F
MSP-801V1-02-01-B NI FE LF
1301-A
S-VIDEO
1301-C
1301-B
SY
SC
-12Va_AM
+12Va_AM
LM833D
7351-1
7351-2
7352
CS4344
VQ
FILT+
AOUTL
AOUTR
SDIN
DEM
SCLK
LRCK
MCLK
VA
Data_Lo
PCM_SCLK
PCM_LRCLK
PCM_MCLK
+5VA
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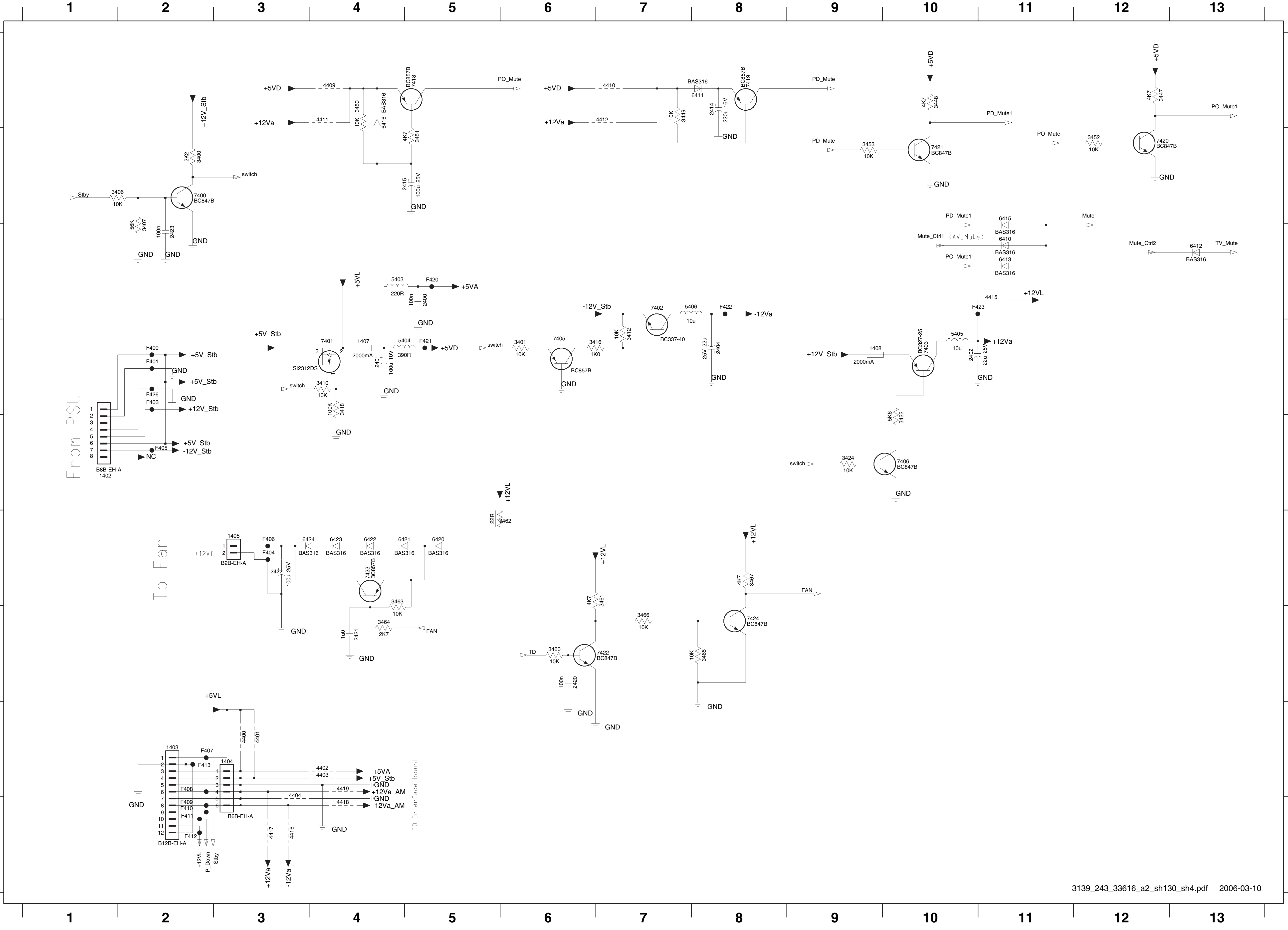
1300-1	A11
1301-A	E12
1301-B	F11
1301-C	F11
1302	F1
2300	G4
2301	G4
2302	G4
2340	F11
2341	D6
2342	E3
2343	E5
2344	D5
2351	H9
2352	H7
2353	H7
2354	H8
2355	H9
2356	H5
2357	H9
2358	I6
2359	I11
2360	I11
2361	I11
2362	I11
2363	I9
2364	I7
2365	I7
2366	I8
2367	B5
2368	A5
2369	A7
2371	B10
2372	B10
2373	B7
2374	B10
2375	B7
2376	B10
2379	B7
2380	C5
2381	C10
2382	C12
2383	C12
2384	D11
2385	D12
2386	D11
2387	E7
2388	F10
2389	F10
2390	F11
2391	F11
2392	G3
2393	G3
2394	G5
2395	H2
2396	G2
2397	H2
2398	H5
2399	H8
3301	A6
3302	A7
3305	A6
3306	A11
3308	B9
3309	B5
3310	B5
3311	C6
3312	C6
3346	B11
3348	B10
3349	B6
3351	B7
3353	C6
3354	C4
3355	C4
3357	C10
3358	C8
3359	C9
3360	C3
3367	I8
3369	C10
3370	D4
3371	D5
3372	D5
3373	D9
3374	D3
3375	D3
3376	D6
3377	E4
3378	E4
3379	F4
3380	G2
3381	G2
3382	G5
3383	H6
3384	H7
3385	H7
3386	H8
3387	C9
3391	H6
3392	B5
3397	I6
3398	I7
3399	I8
4300	F7
4301	F7
4302	F7
4312	F2
4315	F4
5300	F4
5301	F4
5302	F5
5305	E7
5306	H11
6324	A12
6325	B12
6326	B12
6327	B12
6328	B12
6329	C11
6330	C12
6331	C12
6332	D12
6333	B4
6334	B4
7342	A6
7344	B7
7345	C4
7346	D10
7347	D4
7348	D6
7349	E4
7350	E6
7351-1	H6
7351-2	I6
7352	H11
7353	A5
7354	C9
F300	A11
F301	B11
F302	B11
F303	B11
F304	B11
F305	B11
F306	B11
F307	C11
F308	C11
F309	C11
F310	D11
F311	D11
F312	D11
F316	F11
F317	G10
F320	F1
F321	G1
F322	G1
F323	G1
F325	H10
F327	E7
T301	H8
T302	I8
T439	G2

AV Board: Circuit Diagram (Part 4)


1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
+12V_Stb
2K2
3400
switch
Stby
3406
10K
7400
BC847B
56K
3407
100n
2423
GND
+5VD
+12Va
4409
4411
3450
10K
BAS316
6416
BC857B
7418
4K7
3451
2415
100u 25V
PO_Mute
4410
4412
BAS316
6411
10K
3449
2414
220u 16V
BC857B
7419
PD_Mute
4K7
3448
PD_Mute1
3453
10K
7421
BC847B
PO_Mute
3452
10K
7420
BC847B
4K7
3447
PO_Mute1
PD_Mute1
6415
BAS316
Mute
Mute_Ctrl1
(AV_Mute)
6410
PO_Mute1
6413
Mute_Ctrl2
6412
TV_Mute
+5VL
5403
220R
F420
+5VA
100n
2400
+5V_Stb
7401
SI2312DS
1407
2000mA
2401
100u 10V
5404
390R
F421
3410
10K
100K
3418
-12V_Stb
7402
BC337-40
5406
10u
F422
-12Va
3401
10K
7405
BC857B
3416
1K0
10K
3412
25V 22u
2404
4415
+12VL
F423
+12V_Stb
1408
2000mA
BC327-25
7403
5405
10u
+12Va
2402
22u 25V
5K6
3422
3424
10K
7406
BC847B
F400
F401
F426
F403
F405
+5V_Stb
+12V_Stb
-12V_Stb
NC
B8B-EH-A
1402
From PSU
22R
3462
1405
F406
F404
B2B-EH-A
+12VF
To Fan
6424
6423
6422
6421
6420
2422
100u 25V
7423
BC857B
3463
10K
3464
2K7
FAN
1u0
2421
4K7
3461
3466
10K
4K7
3467
7424
BC847B
TD
3460
10K
7422
BC847B
100n
2420
10K
3465
1403
F407
F413
1404
4400
4401
4402
4403
4419
4404
4418
+5VA
+12Va_AM
-12Va_AM
F408
F409
F410
F411
F412
B12B-EH-A
B6B-EH-A
4417
4416
+12VL
P_Down
Stby
TO Interface board

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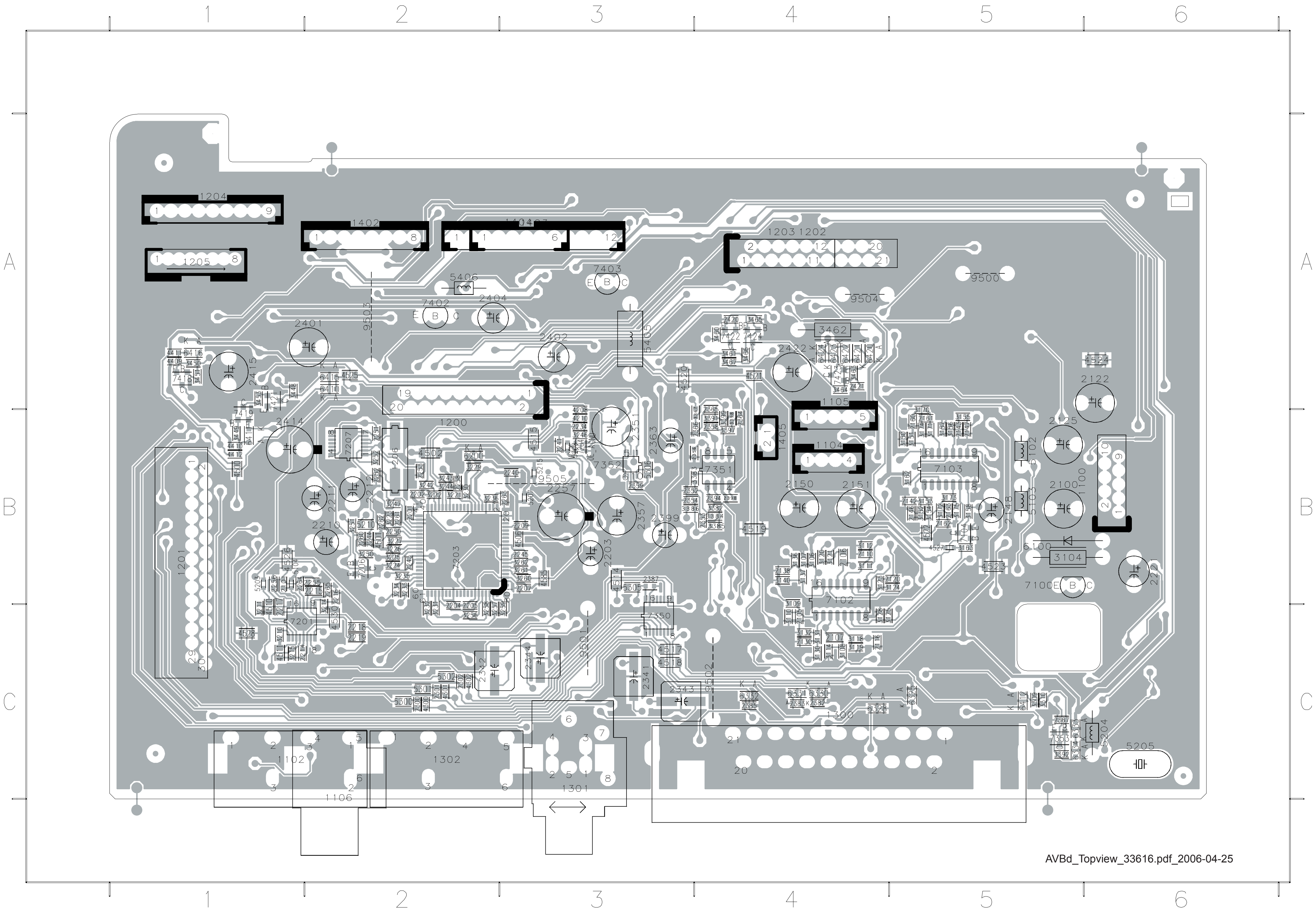
1402	E1
1403	H2
1404	H3
1405	F3
1407	D4
1408	D9
2400	C5
2401	D4
2402	D10
2404	D8
2414	A8
2415	B5
2420	G6
2421	G4
2422	F3
2423	C2
3400	B2
3401	D6
3406	B1
3407	C2
3410	D4
3412	D7
3416	D6
3418	D4
3422	E10
3424	E9
3447	A12
3448	A10
3449	A7
3450	A4
3451	B5
3452	B12
3453	B9
3460	G6
3461	F7
3462	F6
3463	F4
3464	G4
3465	G8
3466	G7
3467	F8
4400	H3
4401	H3
4402	H4
4403	H4
4404	I3
4409	A4
4410	A7
4411	A4
4412	A7
4415	C11
4416	I3
4417	I3
4418	I4
4419	H4
5403	C4
5404	D4
5405	D10
5406	C7
6410	C11
6411	A8
6412	C13
6413	C11
6415	B11
6416	A4
6420	F5
6421	F4
6422	F4
6423	F4
6424	F3
7400	B2
7401	D4
7402	C7
7403	D10
7405	D6
7406	E10
7418	A5
7419	A8
7420	B12
7421	B10
7422	G7
7423	F4
7424	G8
F400	D2
F401	D2
F403	D2
F404	F3
F405	E2
F406	F3
F407	H2
F408	H2
F409	I2
F410	I2
F411	I2
F412	I2
F413	H2
F420	C5
F421	D5
F422	C8
F423	C11
F426	D2

Layout: AV Board (Topview)

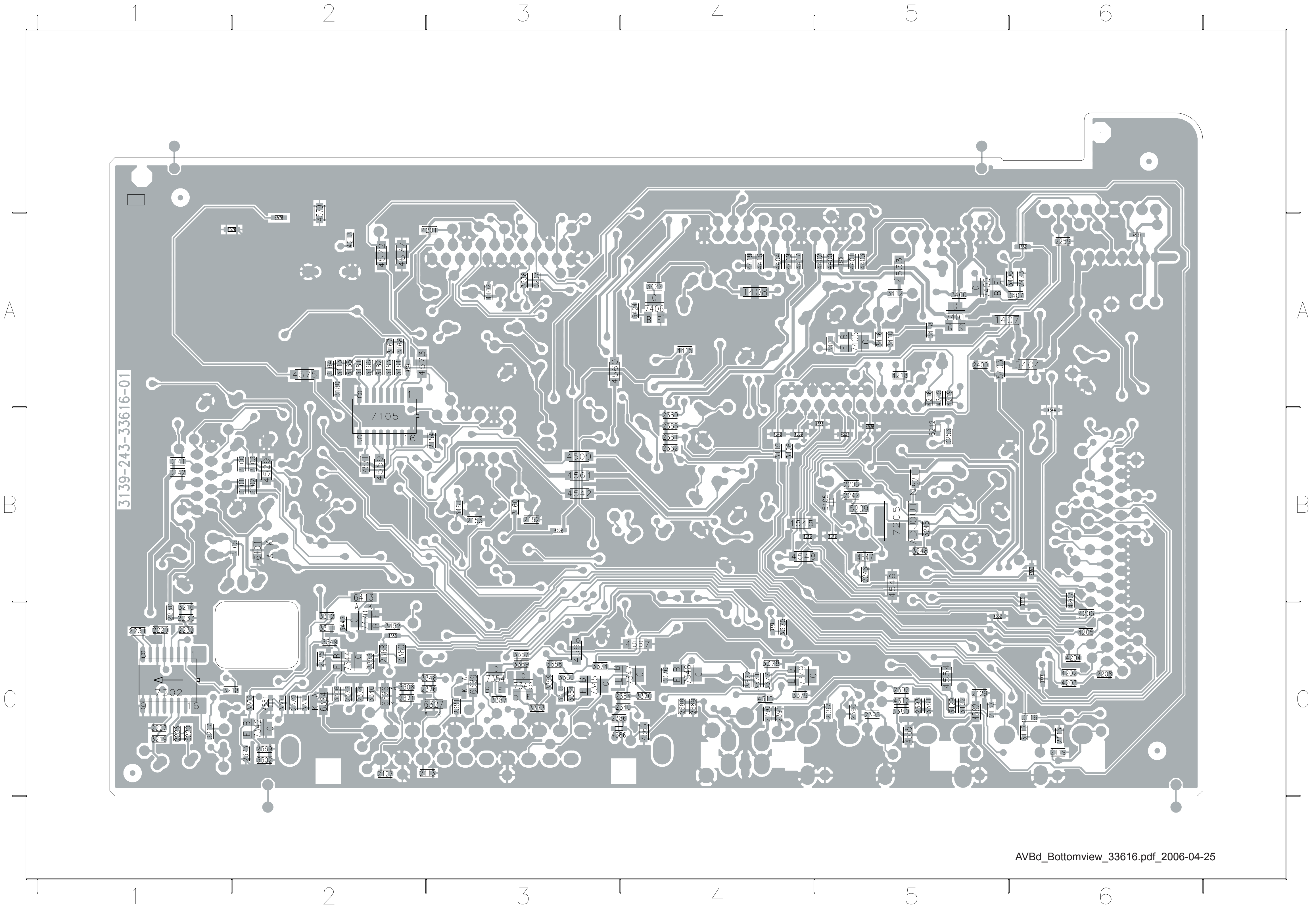
1100	B5
1102	C1
1104	B4
1105	A4
1106	C2
1200	B2
1201	B1
1202	A4
1203	A4
1204	A1
1205	A1
1206	B2
1300	C4
1301	C3
1302	C2
1402	A2
1403	A3
1404	A3
1405	B4
2100	B5
2101	B1
2105	C4
2106	B4
2107	C4
2110	B4
2116	C4
2120	B5
2122	A6
2125	B5
2130	C4
2138	B4
2142	B5
2143	B5
2146	B5
2147	B5
2148	B5
2150	B4
2151	B4
2160	B5
2161	B5
2162	B5
2163	B5
2201	B2
2202	B2
2203	B3
2204	C2
2205	C2
2207	B3
2209	B3
2210	B2
2211	B2
2212	B2
2214	C1
2215	B2
2216	B2
2217	C1
2218	C2
2219	C2
2221	B6
2234	B3
2240	B3
2241	B3
2243	B2
2244	B2
2245	B3
2250	B2
2251	B2
2252	B2
2253	B2
2255	B2
2256	B1
2257	B3
2258	B2
2260	B2
2261	B2
2262	B2
2263	B3
2264	B1
2265	B2
2300	C2
2301	C2
2302	C2
2341	C3
2342	C2
2343	C3
2344	C3
2351	B3
2352	B3
2353	B4
2354	B3
2356	B3
2357	B3
2358	B4
2359	B3
2363	B3
2364	B4
2365	A4
2366	B4
2367	C5
2382	C4
2383	C4
2385	C4
2387	B3
2394	B4
2398	B4
2399	B3
2401	A2
2402	A3
2404	A2
2414	B1
2415	A1
2420	A4
2421	A4
2422	A4
3104	B5
3106	B4
3107	B4
3108	C4
3109	B4
3110	C4
3111	B4
3112	B4
3114	C4
3118	C4
3119	C4
3120	B4
3121	B4
3123	B4
3124	B5
3125	C4
3128	C4
3130	C4
3131	C4
3132	C4
3136	B4
3137	B4
3140	B4
3150	B5
3151	B5
3152	B5
3153	B5
3154	B5
3155	B5
3156	B5
3157	B5
3158	B5
3162	B5
3163	B5
3170	B5
3171	B5
3172	B5
3173	B5
3174	B5
3175	B5
3210	C1
3211	C1
3214	C2
3215	C1
3221	B2
3222	B2
3223	B2
3224	B2
3225	B2
3226	B2
3227	B2
3229	B2
3230	B2
3231	C2
3232	C2
3233	B2
3234	B2
3235	B2
3236	B2
3242	B2
3243	B2
3244	B2
3246	B3
3247	B2
3250	B2
3251	B2
3252	B2
3256	C2
3257	C2
3258	C2
3259	C3
3260	B3
3261	B3
3262	B3
3309	C5
3310	C5
3367	B4
3382	B4
3383	B3
3384	B4
3385	B4
3386	B3
3391	B4
3392	C5
3397	B4
3398	B4
3399	B4
3448	A1
3449	B1
3450	A1
3451	A1
3453	A1
3460	A4
3461	A4
3462	A4
3463	A4
3464	A4
3465	A4
3466	A4
3467	A4
4208	B3
4210	B3
4300	C2
4301	C2
4302	C2
4409	A1
4410	B1
4411	A1
4412	B1
4500	B1
4501	B2
4502	B2
4506	B3
4510	C1
4511	C1
4514	B3
4515	B3
4517	C3
4518	C3
4519	B4
4520	A3
4521	A4
4522	B5
4523	B5
4524	A6
4525	A2
4526	B1
4527	B5
4528	C1
4530	C2
4585	B3
5102	B5
5103	B5
5104	B1
5203	B1
5204	C6
5205	C6
5207	B3
5208	B3
5210	B2
5215	B3
5300	C2
5301	C2
5302	C2
5305	B3
5306	B3
5405	A3
5406	A2
6100	B5
6200	B2
6325	C5
6328	C4
6330	C4
6331	C4
6332	C4
6333	C5
6334	C5
6410	A2
6411	B1
6412	C5
6415	A2
6416	A1
6420	A4
6421	A4
6422	A4
6423	A4
6424	A4
7100	B5
7102	B4
7103	B5
7104	B5
7201	C1
7203	B2
7204	B3
7206	B2
7207	B2
7350	C3
7351	B4
7352	B3
7353	C5
7402	A2
7403	A3
7418	A1
7419	B1
7421	A1
7422	A4
7423	A4
7424	A4
9500	A5
9501	C3
9502	C4
9503	A2
9504	A4
9505	B3


1
2
3
4
5
6
A
B
C
1204
1402
1403
1205
1203 1202
7403
5406
7402
2404
2401
2402
9503
5405
3462
2422
9504
9500
4524
2122
1200
2414
2415
1105
1104
1405
7351
7103
2150
2151
2125
2100
1100
7207
7352
9505
2257
2351
2363
2357
2399
2203
2148
6100
3104
2221
7100
1201
7203
7201
7102
7350
9501
2341
2342
2344
2343
9502
1300
5204
5205
1102
1302
1106
1301

AVBd_Topview_33616.pdf_2006-04-25

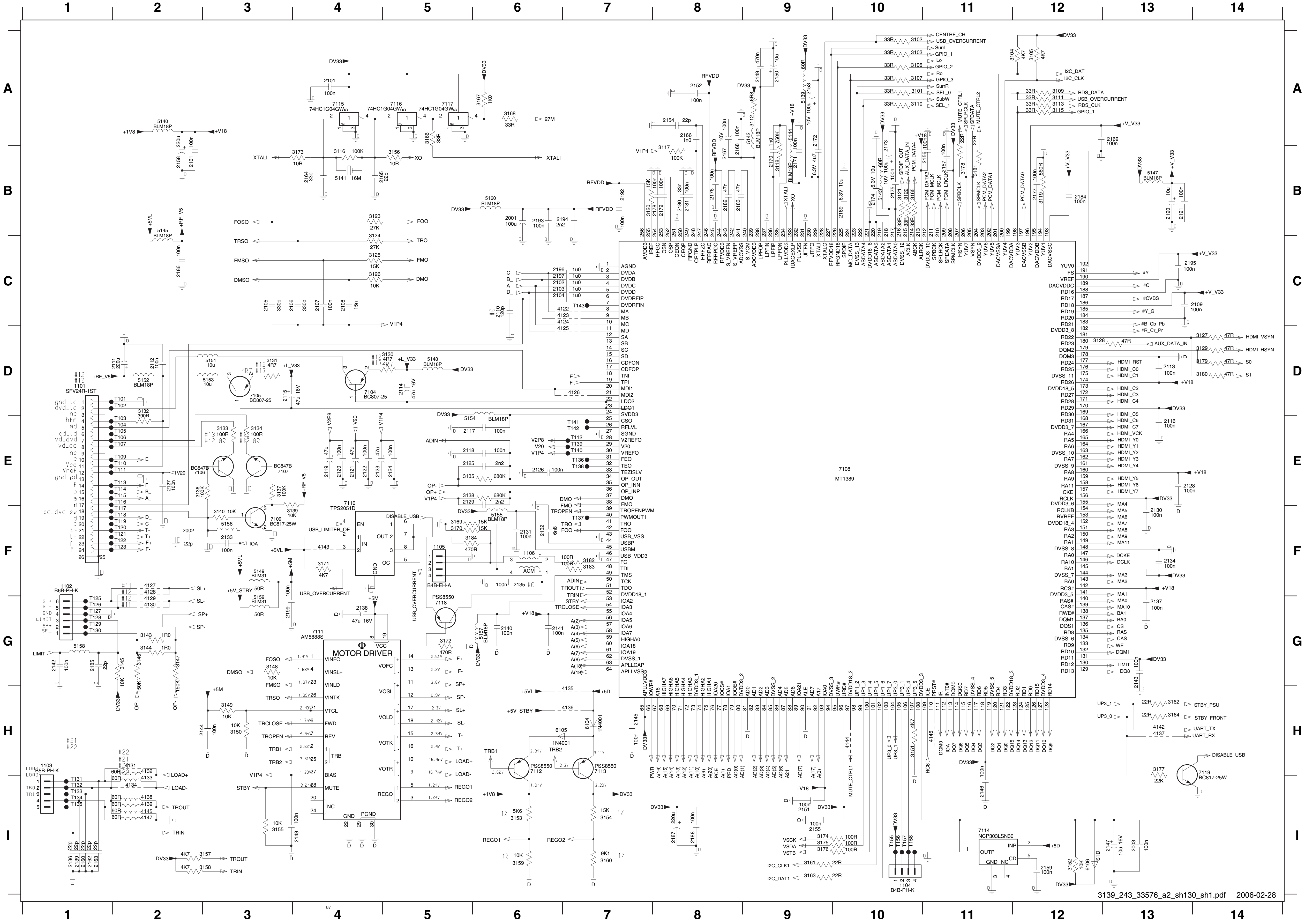
Layout: AV Board (Bottom view)

1407	A5
1408	A4
2113	C3
2115	C6
2119	C6
2127	C2
2129	C5
2137	C5
2152	B3
2153	B3
2154	B3
2206	B5
2208	C6
2220	C1
2226	C1
2227	C1
2230	C1
2231	C1
2232	C1
2233	C1
2242	B5
2246	B5
2259	A6
2340	C4
2355	B4
2360	B4
2361	B4
2362	B4
2368	C2
2369	C2
2371	C2
2372	C2
2373	C2
2374	C2
2375	C2
2376	C3
2379	C2
2380	C2
2381	C3
2384	C4
2386	C3
2388	C4
2389	C4
2390	C4
2391	C4
2392	C5
2393	C5
2395	C5
2396	C5
2397	C5
2400	A5
2423	A6
3100	B2
3101	B2
3102	B2
3103	B2
3105	B2
3113	A2
3115	B4
3116	C6
3117	C6
3122	C5
3126	B4
3129	C5
3141	B1
3142	B1
3160	B3
3161	B3
3164	A2
3165	A2
3166	A2
3167	A2
3168	A2
3180	A2
3181	A2
3182	A2
3183	A2
3184	A2
3216	C1
3217	C1
3218	C1
3219	C1
3220	C1
3237	A3
3238	A3
3245	B5
3248	B5
3253	B5
3301	C2
3302	C2
3305	C2
3306	C2
3308	C2
3311	C2
3312	C2
3346	C2
3348	C3
3349	C2
3351	C2
3353	C2
3354	C3
3355	C3
3357	C3
3358	C3
3359	C3
3360	C3
3369	C3
3370	C4
3371	C4
3372	C4
3373	C3
3374	C3
3375	C4
3376	C4
3377	C4
3378	C4
3379	C4
3380	C5
3381	C5
3387	C3
3400	A5
3401	A5
3406	A6
3407	A6
3410	A5
3412	A5
3416	A5
3418	A5
3422	A4
3424	A4
3447	C2
3452	C2
4102	A3
4201	A3
4202	C6
4203	C6
4204	C6
4205	C6
4206	C6
4207	B6
4213	A2
4215	A5
4216	A5
4218	A5
4219	A5
4312	C5
4315	C4
4400	A5
4401	A5
4402	A5
4403	A5
4404	A4
4415	A4
4416	A4
4417	A4
4418	A4
4419	A4
4509	B3
4529	B2
4531	A6
4532	A6
4533	A5
4536	B5
4537	B5
4538	B5
4539	B4
4540	B4
4542	B3
4543	B4
4544	B6
4545	B4
4546	B5
4547	B5
4548	B4
4549	B5
4550	B6
4551	B6
4552	C5
4553	C6
4554	C5
4555	C5
4559	B2
4560	A3
4561	B3
4564	C4
4565	C4
4566	C3
4567	C4
4568	C3
4569	B3
4570	A5
4571	B2
4572	A2
4573	A2
4574	A2
4575	A2
4576	A2
4577	A2
4578	A1
4579	A2
4580	C2
4581	C2
4582	C5
5105	B5
5209	B5
5211	B5
5212	B5
5403	A5
5404	A6
6101	B2
6324	C2
6326	C2
6327	C3
6329	C3
6413	B2
7105	B2
7202	C1
7205	B5
7342	C2
7344	C2
7345	C3
7346	C3
7347	C4
7348	C4
7349	C4
7354	C3
7400	A5
7401	A5
7405	A5
7406	A4
7420	C2



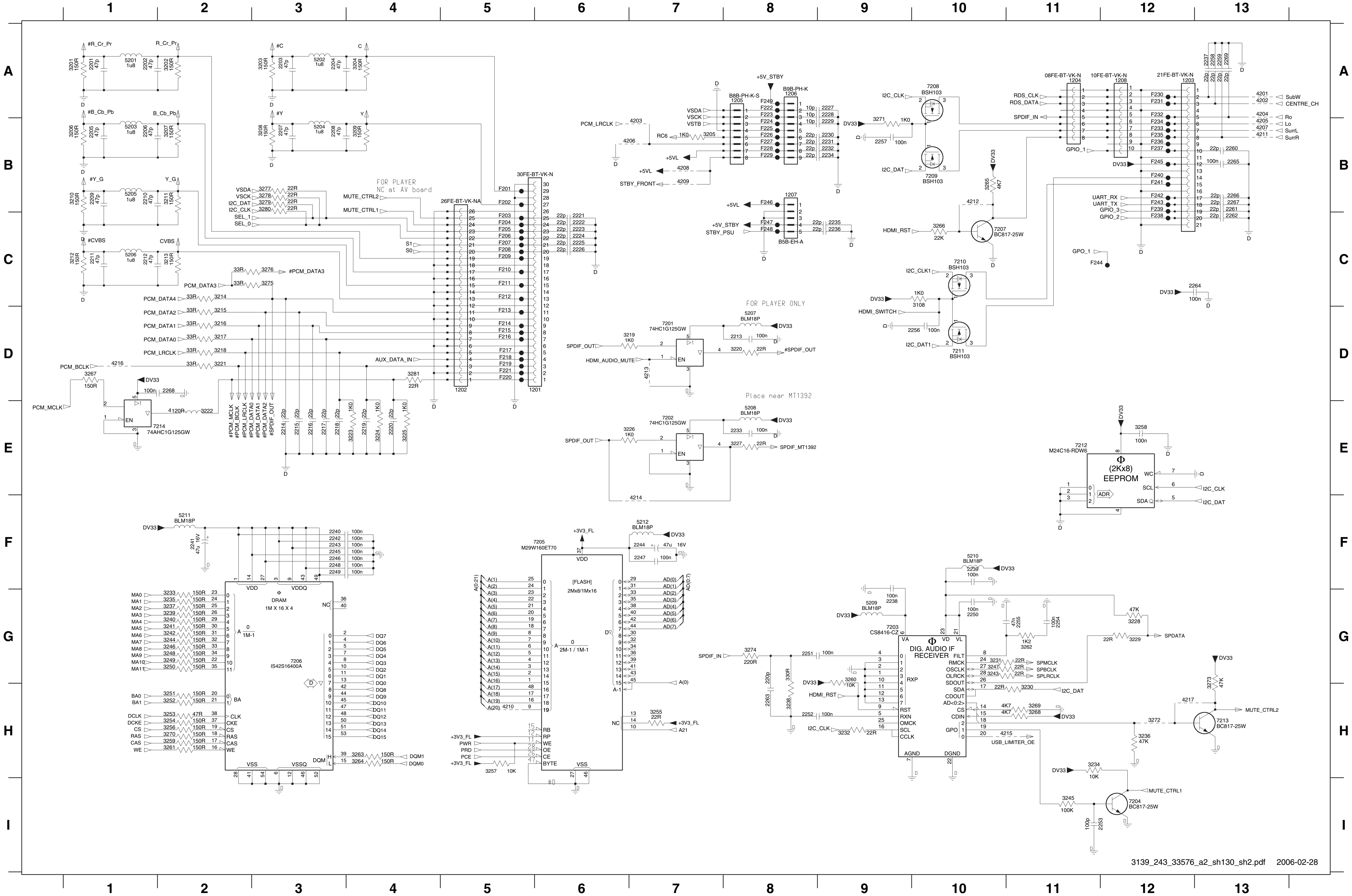
AVBd_Bottomview_33616.pdf_2006-04-25

PCBA 9.1: Circuit Diagram (Part 1)


1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I
7108
MT1389
7111
AM5888S
MOTOR DRIVER
7110
TPS2051D
7114
NCP303LSN30
1101
SFV24R-1ST
1102
B6B-PH-K
1103
B5B-PH-K
1104
B4B-PH-K
1105
B4B-EH-A
7115 74HC1G04GW
7116 74HC1G04GW
7117 74HC1G04GW
7104 BC807-25
7105 BC807-25
7106 BC847B
7107 BC847B
7109 BC817-25W
7112 PSS8550
7113 PSS8550
7118 PSS8550
7119 BC817-25W
3139_243_33576_a2_sh130_sh1.pdf
2006-02-28

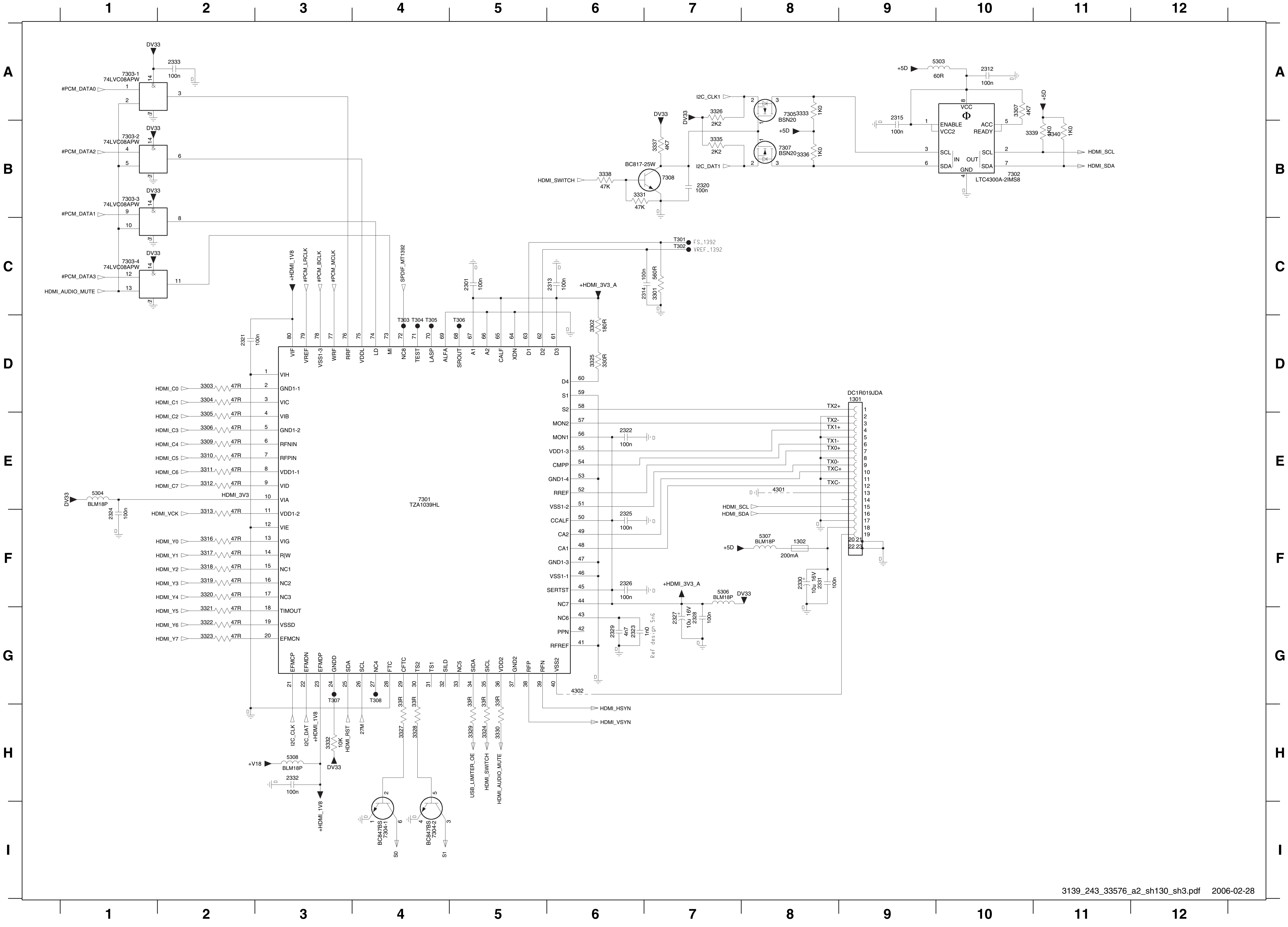
1101	D1
1102	F1
1103	H1
1104	I10
1105	F5
1106	F6
2001	B6
2002	F2
2003	I13
2101	A4
2102	C6
2103	C6
2104	C6
2105	C3
2106	C4
2107	C4
2108	C4
2109	C14
2110	C6
2111	D2
2112	D2
2113	D13
2114	D5
2115	D3
2116	E13
2117	E5
2118	E5
2119	E4
2120	E4
2121	E4
2122	E4
2123	E4
2124	E5
2125	E5
2126	E6
2127	E2
2128	E13
2129	E5
2130	F13
2131	F6
2132	F6
2133	F3
2134	F13
2135	F6
2136	I1
2137	G13
2138	G4
2139	I1
2140	G6
2141	G6
2142	G1
2143	G13
2144	H3
2145	H7
2146	I11
2147	I13
2148	I4
2149	A9
2150	A9
2151	I9
2152	A8
2153	A9
2154	A8
2155	I9
2156	B10
2157	B11
2158	B2
2159	I12
2160	I1
2161	B2
2162	I1
2163	I1
2164	B4
2165	B5
2166	A8
2167	B8
2168	B8
2169	A13
2170	B9
2171	B9
2172	A9
2173	B10
2174	B10
2175	B10
2176	B8
2177	B12
2178	B8
2179	B8
2180	B8
2181	B8
2182	B8
2183	B8
2184	B12
2185	G1
2186	C2
2187	I8
2188	I8
2189	B10
2190	B13
2191	B13
2192	B7
2193	B6
2194	B6
2195	C13
2196	C6
2197	C6
2199	G3
3101	A10
3102	A10
3103	A10
3104	A12
3105	A12
3106	A10
3107	A10
3109	A12
3110	A10
3111	A12
3112	A9
3113	A12
3115	A12
3116	B4
3117	B8
3118	B9
3119	B12
3120	B7
3121	B10
3122	B10
3123	B4
3124	C4
3125	C4
3126	C4
3127	D14
3128	D12
3129	D14
3130	D5
3131	D3
3132	D2
3133	E3
3134	E3
3135	E5
3136	E2
3137	E3
3138	E5
3139	F3
3140	F3
3143	G2
3144	G2
3145	G2
3146	G2
3147	G2
3148	G3
3149	H3
3150	H3
3151	H10
3152	I12
3153	I6
3154	I7
3155	I3
3156	B5
3157	I3
3158	I3
3159	I6
3160	I7
3161	I9
3162	H13
3163	I9
3164	H13
3165	B10
3166	A5
3167	A6
3168	A6
3169	F5
3170	F5
3171	F4
3172	G5
3173	B4
3174	I9
3175	I9
3176	I9
3177	H13
3178	B11
3179	D14
3180	D14
3181	B11
3182	F7
3183	F7
3184	F5
4122	C7
4123	C7
4124	C7
4125	D7
4126	D7
4127	F2
4128	F2
4129	G2
4130	G2
4131	H2
4132	H2
4133	I2
4134	I2
4135	H7
4136	H7
4137	H13
4138	I2
4139	I2
4142	H13
4143	F4
4144	H10
4145	I2
4146	H11
4147	I2
5139	A9
5140	A2
5141	B4
5142	A9
5143	B10
5144	A9
5145	B2
5147	B13
5148	D5
5149	F3
5151	D3
5152	D2
5153	D3
5154	E5
5155	F6
5156	F3
5157	G6
5158	G1
5159	G3
5160	B6
6104	H7
6105	H6
6106	I12
7104	D4
7105	D3
7106	E2
7107	E3
7108	E10
7109	F3
7110	E4
7111	G4
7112	H6
7113	H7
7114	I11
7115	A4
7116	A5
7117	A5
7118	G5
7119	H14
T101	D2
T102	D2
T103	E2
T104	E2
T105	E2
T106	E2
T107	E2
T109	E2
T110	E2
T111	E2
T112	E7
T113	E2
T114	E2
T115	E2
T116	E2
T117	F2
T118	F2
T119	F2
T120	F2
T121	F2
T122	F2
T123	F2
T125	G1
T126	G1
T127	G1
T128	G1
T129	G1
T130	G1
T131	I1
T132	I1
T133	I1
T134	I1
T135	I1
T136	E7
T137	F7
T138	E7
T139	E7
T140	E7
T141	E7
T142	E7
T143	C7
T155	I10
T156	I10
T157	I10
T158	I10

PCBA 9.1: Circuit Diagram (Part 2)


1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
#R_Cr_Pr
R_Cr_Pr
#B_Cb_Pb
B_Cb_Pb
#Y_G
Y_G
#CVBS
CVBS
#C
C
#Y
Y
FOR PLAYER
NC at AV board
MUTE_CTRL2
MUTE_CTRL1
VSDA
VSCK
I2C_DAT
I2C_CLK
SEL_1
SEL_0
S1
S0
PCM_DATA3
#PCM_DATA3
PCM_DATA4
PCM_DATA2
PCM_DATA1
PCM_DATA0
PCM_LRCLK
PCM_BCLK
PCM_MCLK
AUX_DATA_IN
26FE-BT-VK-NA
30FE-BT-VK-N
1202
1201
7214
74AHC1G125GW
+5V_STBY
B8B-PH-K-S
1205
B9B-PH-K
1206
VSTB
RC6
+5VL
STBY_FRONT
PCM_LRCLK
DV33
1207
+5V_STBY
STBY_PSU
B5B-EH-A
FOR PLAYER ONLY
5207
BLM18P
7201
74HC1G125GW
SPDIF_OUT
HDMI_AUDIO_MUTE
#SPDIF_OUT
Place near MT1392
5208
BLM18P
7202
74HC1G125GW
SPDIF_MT1392
I2C_CLK
7208
BSH103
I2C_DAT
7209
BSH103
HDMI_RST
7207
BC817-25W
I2C_CLK1
7210
BSH103
HDMI_SWITCH
I2C_DAT1
7211
BSH103
08FE-BT-VK-N
1204
10FE-BT-VK-N
1208
21FE-BT-VK-N
1203
RDS_CLK
RDS_DATA
SPDIF_IN
GPIO_1
UART_RX
UART_TX
GPIO_3
GPIO_2
GPO_1
SubW
CENTRE_CH
Ro
Lo
SurrL
SurrR
7212
M24C16-RDW6
(2Kx8)
EEPROM
WC
SCL
SDA
ADR
I2C_CLK
I2C_DAT
5211
BLM18P
DRAM
1M X 16 X 4
7206
IS42S16400A
VDD
VDDQ
VSS
VSSQ
CLK
CKE
CS
RAS
CAS
WE
DQM
DQM1
DQM0
7205
M29W160ET70
[FLASH]
2Mx8/1Mx16
2M-1 / 1M-1
RB
RP
WE
OE
CE
BYTE
PWR
PRD
PCE
+3V3_FL
5212
BLM18P
A21
5210
BLM18P
5209
BLM18P
7203
CS8416-CZ
DIG. AUDIO IF
RECEIVER
RXP
RST
RXN
OMCK
SCL
CCLK
FILT
RMCK
OSCLK
OLRCK
SDOUT
SDA
CDOUT
AD<0:2>
CS
CDIN
GPO
AGND
DGND
SPMCLK
SPBCLK
SPLRCLK
SPDATA
USB_LIMITER_OE
7213
BC817-25W
MUTE_CTRL2
7204
BC817-25W
MUTE_CTRL1
3139_243_33576_a2_sh130_sh2.pdf
2006-02-28

1201	D6
1202	D5
1203	A12
1204	A11
1205	A8
1206	A8
1207	B8
1208	A12
2201	A1
2202	A1
2203	A3
2204	A3
2205	B1
2206	B1
2207	B3
2208	B3
2209	B1
2210	B1
2211	C1
2212	C1
2213	D8
2214	E3
2215	E3
2216	E3
2217	E3
2218	E3
2219	E4
2220	E4
2221	C6
2222	C6
2223	C6
2224	C6
2225	C6
2226	C6
2227	A9
2228	A9
2229	B9
2230	B9
2231	B9
2232	B9
2233	E8
2234	B9
2235	C9
2236	C9
2237	A13
2238	G9
2239	F10
2240	F3
2241	F2
2242	F3
2243	F3
2244	F7
2245	F3
2246	F3
2247	F7
2248	F3
2249	F3
2250	G10
2251	G8
2252	H8
2253	I11
2254	G11
2255	G11
2256	D10
2257	B9
2258	A13
2259	A13
2260	B13
2261	B13
2262	C13
2263	H8
2264	C13
2265	B13
2266	B13
2267	B13
2268	D2
2269	A13
3108	C10
3201	A1
3202	A2
3203	A3
3204	A4
3205	B7
3206	B1
3207	B2
3208	B3
3209	B4
3210	B1
3211	B2
3212	C1
3213	C2
3214	C2
3215	D2
3216	D2
3217	D2
3218	D2
3219	D7
3220	D8
3221	D2
3222	E2
3223	E4
3224	E4
3225	E4
3226	E7
3227	E8
3228	G12
3229	G12
3230	H11
3231	G10
3232	H9
3233	G2
3234	H11
3235	G2
3236	H12
3237	G2
3238	H8
3239	G2
3240	G2
3241	G2
3242	G2
3243	G10
3244	G2
3245	I11
3246	G2
3247	G10
3248	G2
3249	G2
3250	G2
3251	H2
3252	H2
3253	H2
3254	H2
3255	H7
3256	H2
3257	H5
3258	E12
3259	H2
3260	G9
3261	H2
3262	G11
3263	H4
3264	H4
3265	B10
3266	C10
3267	D1
3268	H11
3269	H11
3270	H2
3271	A9
3272	H12
3273	G13
3274	G8
3275	C3
3276	C3
3277	B3
3278	B3
3279	B3
3280	B3
3281	D4
4201	A13
4202	A13
4203	B7
4204	A13
4205	B13
4206	B7
4207	B13
4208	B7
4209	B7
4210	H5
4211	B13
4212	B10
4213	D7
4214	F7
4215	H11
4216	D1
4217	H12
5201	A1
5202	A3
5203	B1
5204	B3
5205	B1
5206	C1
5207	D8
5208	E8
5209	G9
5210	F10
5211	F2
5212	F7
7201	D7
7202	E7
7203	G9
7204	I12
7205	F5
7206	G3
7207	C10
7208	A10
7209	B10
7210	C10
7211	D10
7212	E11
7213	H13
7214	E2
F201	B5
F202	B5
F203	C5
F204	C5
F205	C5
F206	C5
F207	C5
F208	C5
F209	C5
F210	C5
F211	C5
F212	C5
F213	D5
F214	D5
F215	D5
F216	D5
F217	D5
F218	D5
F219	D5
F220	D5
F221	D5
F222	A8
F223	A8
F224	B8
F225	B8
F226	B8
F227	B8
F228	B8
F229	B8
F230	A12
F231	A12
F232	A12
F233	B12
F234	B12
F235	B12
F236	B12
F237	B12
F238	C12
F239	B12
F240	B12
F241	B12
F242	B12
F243	B12
F244	C11
F245	B12
F246	B8
F247	C8
F248	C8
F249	A8

PCBA 9.1: Circuit Diagram (Part 3)


1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H I
7301
TZA1039HL
7302
LTC4300A-2IMS8
7303-1
74LVC08APW
7303-2
74LVC08APW
7303-3
74LVC08APW
7303-4
74LVC08APW
7304-1
BC847BS
7304-2
BC847BS
7305
BSN20
7307
BSN20
7308
BC817-25W
DC1R019JDA
1301
#PCM_DATA0
#PCM_DATA2
#PCM_DATA1
#PCM_DATA3
HDMI_AUDIO_MUTE
+HDMI_1V8
#PCM_LRCLK
#PCM_BCLK
#PCM_MCLK
SPDIF_MT1392
+HDMI_3V3_A
HDMI_C0
HDMI_C1
HDMI_C2
HDMI_C3
HDMI_C4
HDMI_C5
HDMI_C6
HDMI_C7
HDMI_3V3
HDMI_VCK
HDMI_Y0
HDMI_Y1
HDMI_Y2
HDMI_Y3
HDMI_Y4
HDMI_Y5
HDMI_Y6
HDMI_Y7
I2C_CLK1
I2C_DAT1
HDMI_SWITCH
HDMI_SCL
HDMI_SDA
FS_1392
VREF_1392
TX2+
TX2-
TX1+
TX1-
TX0+
TX0-
TXC+
TXC-
HDMI_HSYN
HDMI_VSYN
I2C_CLK
I2C_DAT
HDMI_RST
27M
USB_LIMITER_OE
HDMI_AUDIO_MUTE
+V18
DV33
+5D
S0
S1
Ref design 5n6

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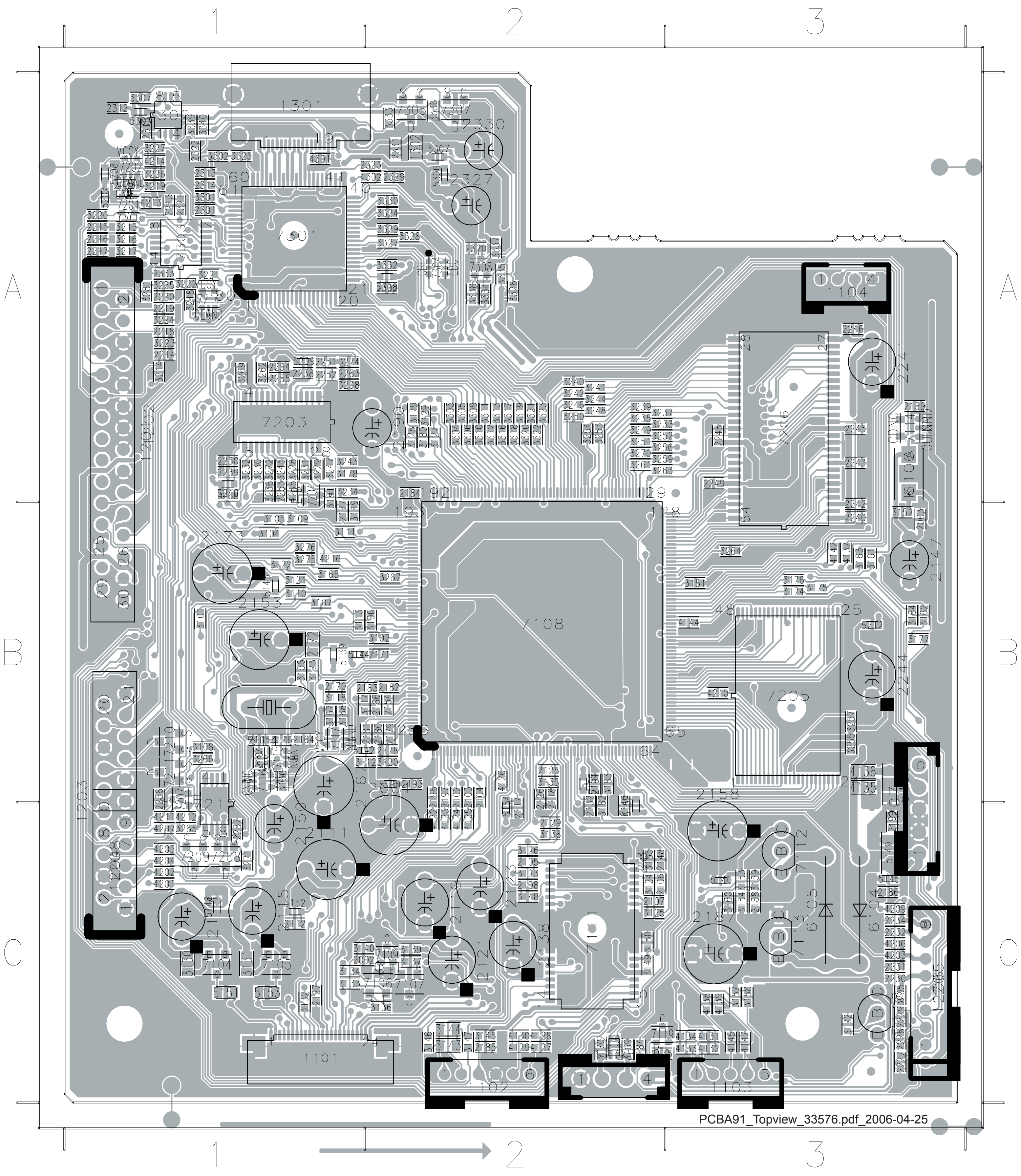
1301	D9
1302	F8
2301	C5
2312	A10
2313	C6
2314	C7
2315	A9
2320	B7
2321	D2
2322	E6
2323	G6
2324	F1
2325	F6
2326	F6
2327	G7
2328	G7
2329	G6
2330	F8
2331	F8
2332	H3
2333	A2
3301	C7
3302	D6
3303	D2
3304	D2
3305	E2
3306	E2
3307	A10
3309	E2
3310	E2
3311	E2
3312	E2
3313	F2
3316	F2
3317	F2
3318	F2
3319	F2
3320	F2
3321	G2
3322	G2
3323	G2
3324	H5
3325	D6
3326	A7
3327	H4
3328	H4
3329	H5
3330	H5
3331	B6
3332	H3
3333	A8
3335	B7
3336	B8
3337	B7
3338	B6
3339	B10
3340	B11
4301	E8
4302	G6
5303	A10
5304	E1
5306	F7
5307	F8
5308	H3
7301	E4
7302	B10
7303-1	A1
7303-2	B1
7303-3	B1
7303-4	C1
7304-1	I4
7304-2	I4
7305	A8
7307	B8
7308	B7
T301	C7
T302	C7
T303	D4
T304	D4
T305	D4
T306	D5
T307	G3
T308	G4

Layout: PCBA 9.1 (Topview)



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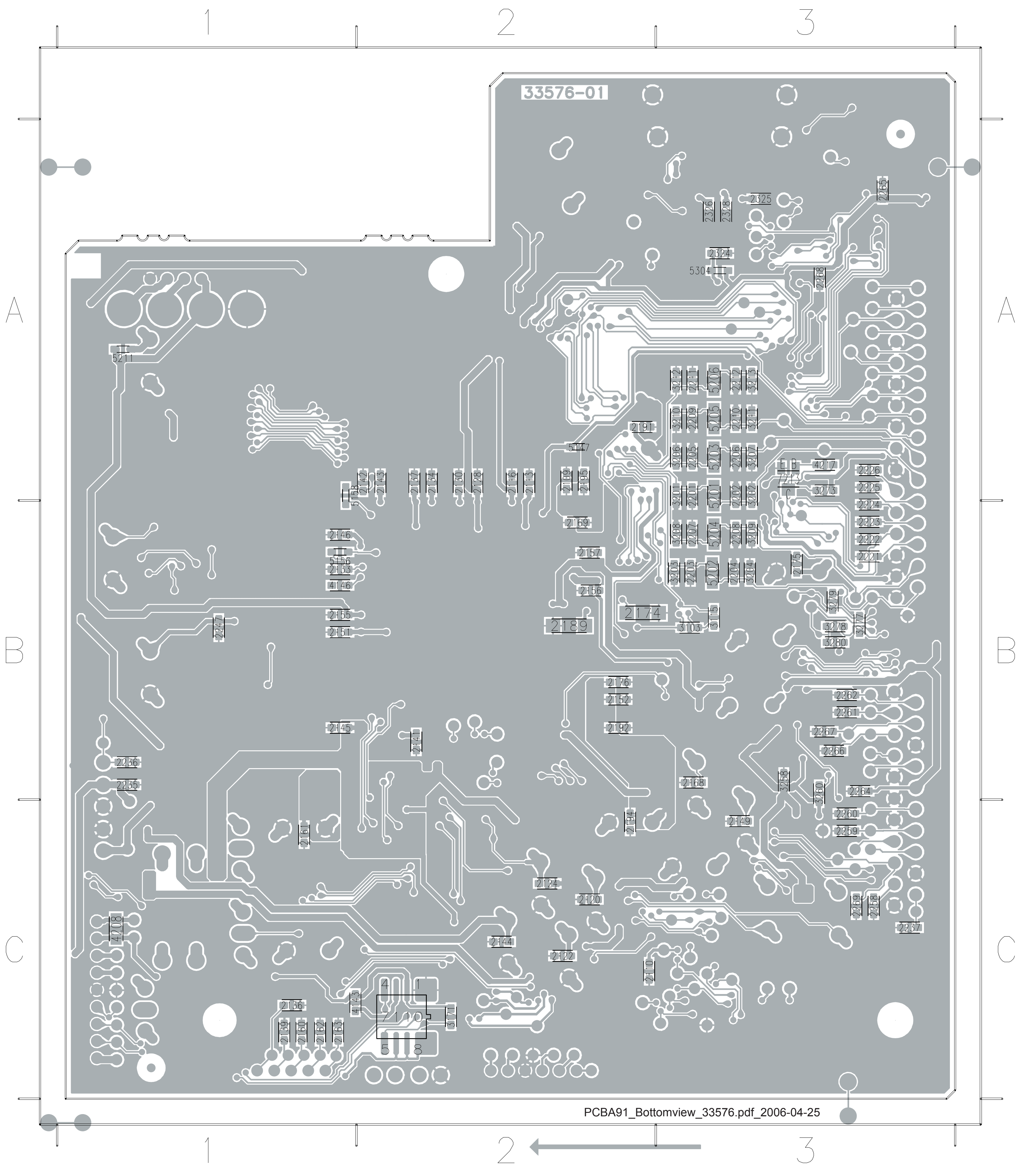
1102	C2	2180	B2	2331	A2	3165	B1	3256	A2	4129	C2	7105	C1
1103	C3	2181	B2	2332	A2	3166	B1	3257	B3	4130	C2	7106	C2
1104	A3	2182	B2	2333	A1	3167	B1	3259	A2	4131	C3	7107	C2
1105	C2	2183	B2	3101	B1	3168	B1	3261	A2	4132	C3	7108	B2
1106	C2	2184	A2	3102	B2	3169	C2	3262	A1	4133	C3	7109	C2
1201	A1	2185	C2	3104	B1	3170	C2	3263	A2	4134	C3	7111	C2
1202	A1	2186	C3	3105	B1	3172	C3	3264	B3	4135	B3	7112	C3
1203	B1	2187	C3	3106	B2	3173	B1	3265	C1	4136	B3	7113	C3
1204	C1	2188	C3	3107	B1	3174	B3	3266	B1	4137	B3	7114	A3
1205	C3	2190	A2	3108	B1	3175	B3	3267	B2	4138	C3	7115	B1
1206	C3	2193	B2	3109	B1	3176	B3	3268	A1	4139	C3	7116	B1
1207	C3	2196	B2	3110	B1	3177	B3	3269	A1	4142	B3	7117	B1
1208	C1	2197	B2	3111	B1	3178	A1	3270	A2	4144	B3	7118	C3
1301	A1	2199	C3	3112	B2	3179	A2	3271	C1	4145	C3	7119	C2
1302	A2	2213	A1	3113	B1	3180	A2	3272	A1	4147	C3	7201	A1
2001	B2	2214	A1	3116	B1	3181	A1	3274	A1	4201	C1	7202	A1
2002	C1	2215	A1	3117	B1	3182	C2	3275	B1	4202	C1	7203	A1
2003	B3	2216	A1	3118	B1	3183	B2	3276	B1	4203	C3	7204	A1
2101	B1	2217	A1	3119	B1	3184	C2	3281	A1	4204	C1	7205	B3
2102	B2	2218	A1	3120	B2	3205	C3	3301	A1	4205	C1	7206	A3
2103	B2	2219	A1	3121	B1	3214	A1	3302	A1	4206	C3	7207	B1
2104	B2	2220	A1	3122	B1	3215	A1	3303	A2	4207	C1	7208	C1
2105	C2	2227	C3	3123	C2	3216	A1	3304	A2	4209	C3	7209	C1
2106	C2	2228	C3	3124	C2	3217	A1	3305	A2	4210	B3	7210	B1
2107	C2	2229	C3	3125	C2	3218	A1	3306	A2	4211	C1	7211	B1
2108	C2	2230	C3	3126	C2	3219	A1	3307	A1	4212	C1	7212	C1
2111	C1	2231	C3	3127	A2	3220	A1	3309	A2	4213	A1	7214	A1
2112	C1	2232	C3	3128	A2	3221	A1	3310	A2	4214	A1	7301	A1
2114	C1	2233	A1	3129	A2	3222	A1	3311	A2	4215	A1	7302	A1
2115	C1	2234	C3	3130	C1	3223	A1	3312	A2	4216	B1	7303	A1
2117	C2	2238	A1	3131	C1	3224	A1	3313	A2	4301	A1	7304	A2
2118	B2	2239	A1	3132	C1	3225	A1	3316	A2	4302	A2	7305	A2
2119	C2	2240	B3	3133	C1	3226	A1	3317	A2	5139	B1	7307	A2
2121	C2	2241	A3	3134	C1	3227	A1	3318	A2	5140	C3	7308	A2
2123	C2	2242	B3	3135	B2	3228	A1	3319	A2	5141	B1		
2125	B2	2243	A3	3136	C2	3229	A1	3320	A2	5142	B1		
2126	B2	2244	B3	3137	C2	3230	A1	3321	A2	5143	B1		
2127	C1	2245	A3	3138	C2	3231	A1	3322	A2	5144	B1		
2129	C2	2246	A3	3139	C2	3232	A1	3323	A2	5145	C3		
2131	B2	2248	A3	3140	C1	3233	A2	3324	A2	5148	C1		
2132	C2	2249	A3	3143	C2	3234	A1	3325	A1	5149	C3		
2135	C2	2250	A1	3144	C2	3235	A2	3326	A2	5151	C1		
2138	C2	2251	A1	3145	C2	3236	A1	3327	A2	5152	C1		
2140	C2	2252	A1	3146	C2	3237	A2	3328	A2	5153	C1		
2147	B3	2253	A1	3147	C2	3238	A1	3329	A2	5154	C2		
2148	C2	2254	A1	3148	C2	3239	A2	3330	A2	5155	B2		
2150	C1	2255	A1	3149	C2	3240	A2	3331	A2	5157	C2		
2153	B1	2256	B1	3150	C2	3241	A2	3332	A2	5159	B3		
2154	B2	2257	C1	3151	B3	3242	A2	3333	A2	5160	B2		
2158	B3	2263	A1	3152	B3	3243	A1	3335	A2	5207	A1		
2159	A3	2301	A1	3153	C3	3244	A2	3336	A2	5208	A1		
2164	B1	2312	A1	3154	C3	3245	A1	3337	A2	5209	A1		
2165	B1	2313	A1	3155	C2	3246	A2	3338	A2	5210	A1		
2166	B2	2314	A1	3156	B1	3247	A1	3339	A1	5212	B3		
2167	B1	2315	A1	3157	C3	3248	A2	3340	A1	5303	A1		
2170	B1	2320	A2	3158	C3	3249	A2	4122	C2	5306	A2		
2171	B2	2321	A1	3159	C3	3250	A2	4123	C2	5307	A2		
2172	B1	2322	A1	3160	C3	3251	A2	4124	C2	5308	A2		
2173	B1	2323	A2	3161	B3	3252	A2	4125	C2	6104	C3		
2177	B1	2327	A2	3162	B3	3253	A2	4126	B2	6105	C3		
2178	B2	2329	A2	3163	B3	3254	A2	4127	C2	6106	A3		

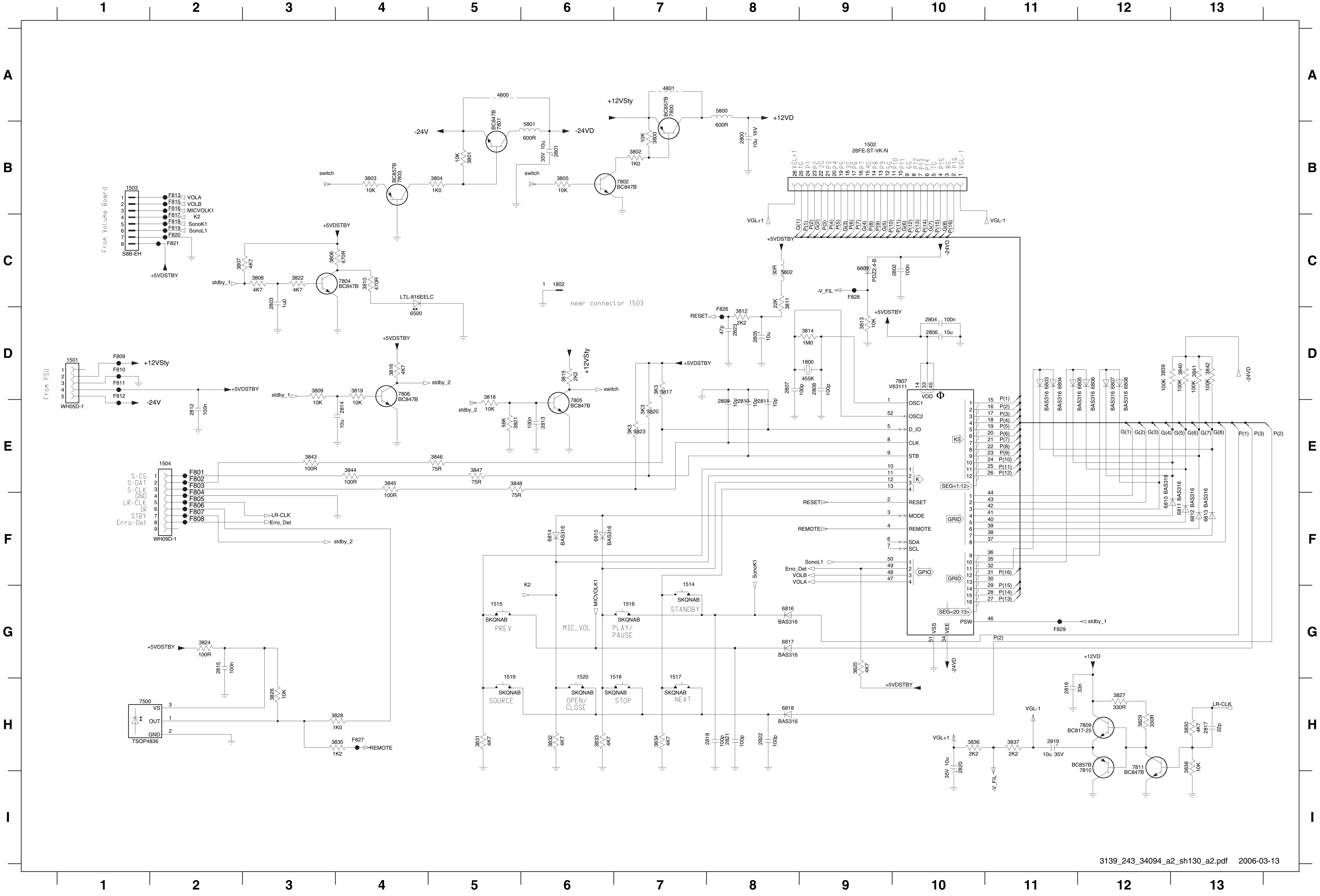
Layout: PCBA 9.1 (Bottom view)



PCBA91_Bottomview_33576.pdf_2006-04-25

2109	A2	2258	C3
2110	C2	2259	C3
2113	A2	2260	C3
2116	A2	2261	B3
2120	C2	2262	B3
2122	C2	2264	B3
2124	C2	2265	A3
2128	A2	2266	B3
2130	A2	2267	B3
2133	B1	2268	A3
2134	A2	2269	C3
2136	C1	2324	A3
2137	A2	2325	A3
2139	C1	2326	A3
2141	B2	2328	A3
2142	A2	3103	B3
2143	A2	3115	B3
2144	C2	3171	C2
2145	B1	3201	A3
2146	B1	3202	A3
2149	C3	3203	B3
2151	B1	3204	B3
2152	B2	3206	A3
2155	B1	3207	A3
2156	B2	3208	B3
2157	B2	3209	B3
2160	C1	3210	A3
2161	C1	3211	A3
2162	C1	3212	A3
2163	C1	3213	A3
2168	B3	3258	B3
2169	B2	3260	B3
2174	B2	3273	A3
2175	B3	3277	B3
2176	B2	3278	B3
2189	B2	3279	B3
2191	A2	3280	B3
2192	B2	4143	C1
2194	C2	4146	B1
2195	A2	4208	C1
2201	A3	4217	A3
2202	A3	5147	A2
2203	B3	5156	B1
2204	B3	5158	A1
2205	A3	5201	A3
2206	A3	5202	B3
2207	B3	5203	A3
2208	B3	5204	B3
2209	A3	5205	A3
2210	A3	5206	A3
2211	A3	5211	A1
2212	A3	5304	A3
2221	B3	7110	C2
2222	B3	7213	A3
2223	B3		
2224	B3		
2225	A3		
2226	A3		
2235	B1		
2236	B1		
2237	C3		
2247	B1		

FB Control Board: Circuit Diagram


1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I
1503
S8B-EH
From Volume Board
F813 VOLA
F815 VOLB
F816 MICVOLK1
F817 K2
F818 SonoK1
F819 SonoL1
F820
F821
+5VDSTBY
1501
WH05D-1
From PSU
F809 +12VSty
F810
F811 +5VDSTBY
F812 -24V
1504
WH09D-1
S-CS
S-DAT
S-CLK
GND
LR-CLK
IR
STBY
Erro-Det
F801
F802
F803
F804
F805
F806
F807
F808
LR-CLK
Erro_Det
stdby_2
4800
-24V
-24VD
7801 BC847B
5801 600R
2801 10u 35V
7803 BC857B
switch
3803 10K
3804 1K0
3801 10K
4801
+12VSty
7800 BC857B
5800 600R
+12VD
2800 10u 16V
3800 10K
3802 1K0
3805 10K
7802 BC847B
1502
26FE-ST-VK-N
VGL+1
VGL-1
7804 BC847B
3807 4K7
3808 4K7
3822 4K7
3806 470R
3810 470R
2803 1u0
stdby_1
LTL-816EELC
6500
1802
near connector 1503
7806 BC847B
3816 4K7
3809 10K
3819 10K
2814 10u
2812 100n
7805 BC847B
3815 2K2
3818 10K
3821 56K
2813 10n
stdby_2
3817 3K3
3820 3K3
3823 3K3
3843 100R
3844 100R
3845 100R
3846 75R
3847 75R
3848 75R
RESET
F826
3812 2K2
2823 47p
2805 10u
5802 30R
3811 22K
-V_FIL
F828
6809 PDZ2.4-B
2802 100n
3813 10K
3814 1M0
1800 455K
2807 100p
2808 100p
2804 100n
2806 10u
2809 10p
2810 10p
2811 10p
7807 V63111
VDD
OSC1
OSC2
D_IO
CLK
STB
RESET
MODE
REMOTE
SDA
SCL
KS
K
SEG<1:12>
GRID
GPIO
SEG<20:13>
PSW
VSS
VEE
F829
6803 BAS316
6804
6805
6806
6807
6808
3839 100K
3840 100K
3841 100K
3842 100K
6810 BAS316
6811 BAS316
6812 BAS316
6813 BAS316
6814 BAS316
6815 BAS316
K2
MICVOLK1
SonoK1
SonoL1
Erro_Det
VOLB
VOLA
1514 SKQNAB STANDBY
1515 SKQNAB PREV
MIC_VOL
1516 SKQNAB PLAY/PAUSE
1519 SKQNAB SOURCE
1520 SKQNAB OPEN/CLOSE
1518 SKQNAB STOP
1517 SKQNAB NEXT
6816 BAS316
6817 BAS316
6818 BAS316
3825 4K7
3824 100R
2815 100n
3826 10K
7500 TSOP4836
VS OUT GND
3828 1K0
3835 1K2
F827 REMOTE
3831 4K7
3832 4K7
3833 4K7
3834 4K7
2818 100p
2821 100p
2822 100p
+12VD
2816 33n
3827 330R
7809 BC817-25
3829 330R
3830 4K7
2817 22p
3836 2K2
3837 2K2
2819 10u 35V
2820 10u 35V
7810 BC857B
7811 BC847B
3838 10K

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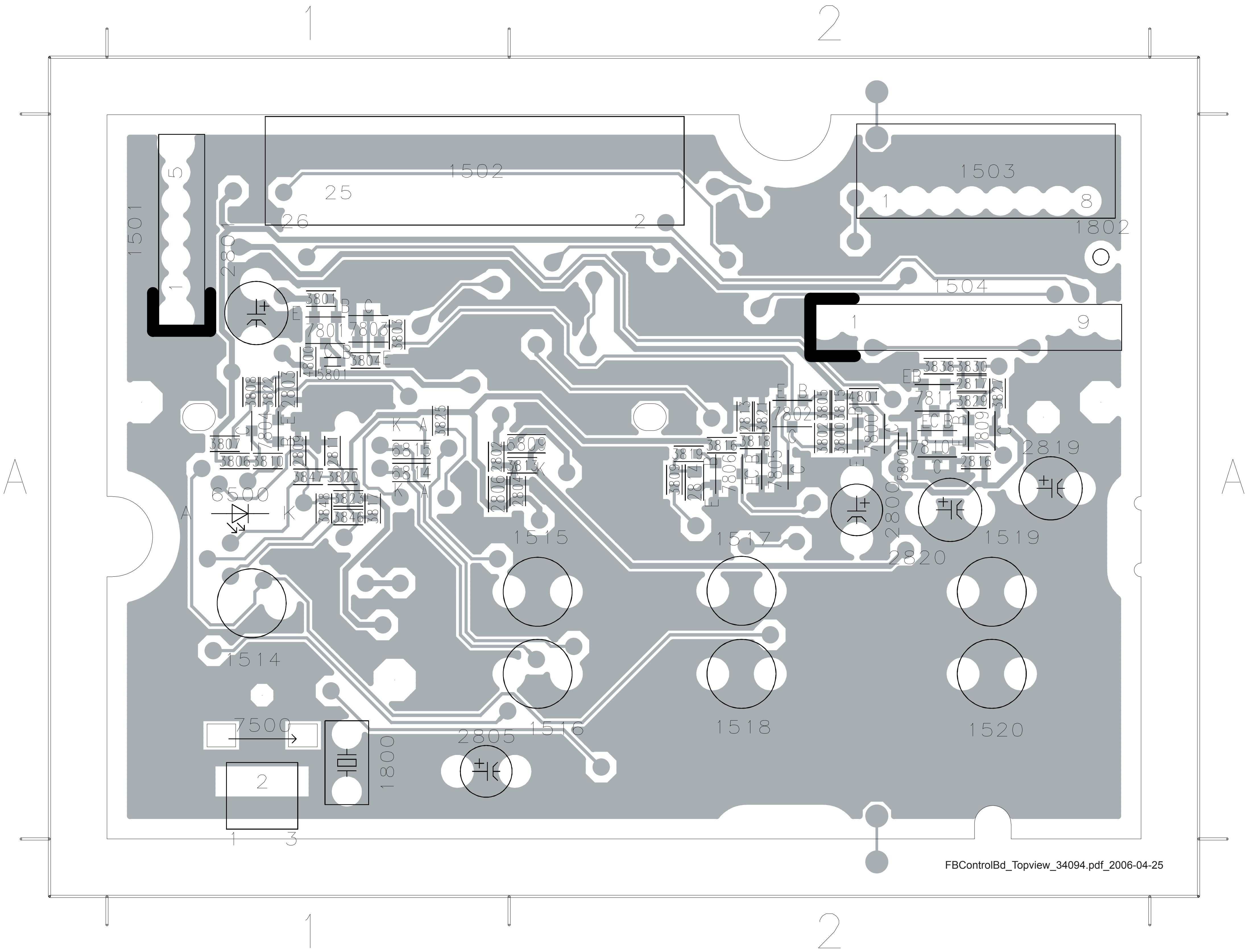
1501	D1
1502	B9
1503	B1
1504	E2
1514	G7
1515	G5
1516	G7
1517	H7
1518	H7
1519	H5
1520	H6
1800	D9
1802	C6
2800	B8
2801	B6
2802	C10
2803	C3
2804	D10
2805	D8
2806	D10
2807	D8
2808	D9
2809	E8
2810	E8
2811	E8
2812	E2
2813	E6
2814	E4
2815	G2
2816	H11
2817	H13
2818	H8
2819	H11
2820	H10
2821	H8
2822	H8
2823	D8
3800	B7
3801	B5
3802	B7
3803	B4
3804	B5
3805	B6
3806	C3
3807	C2
3808	C3
3809	D3
3810	C4
3811	C8
3812	D8
3813	D9
3814	D9
3815	D6
3816	D4
3817	D7
3818	D5
3819	D4
3820	E7
3821	E5
3822	C3
3823	E7
3824	G2
3825	G9
3826	H3
3827	H12
3828	H4
3829	H12
3830	H13
3831	H5
3832	H6
3833	H6
3834	H7
3835	H4
3836	H10
3837	H11
3838	H13
3839	D12
3840	D13
3841	D13
3842	D13
3843	E3
3844	E4
3845	E4
3846	E5
3847	E5
3848	E5
4800	A5
4801	A7
5800	A8
5801	B6
5802	C8
6500	D4
6803	D11
6804	D11
6805	D11
6806	D12
6807	D12
6808	D12
6809	C9
6810	F12
6811	F13
6812	F13
6813	F13
6814	F6
6815	F6
6816	G8
6817	G8
6818	H8
7500	H1
7800	A7
7801	B5
7802	B7
7803	B4
7804	C4
7805	E6
7806	D4
7807	D10
7809	H12
7810	H12
7811	H12
F801	E2
F802	E2
F803	E2
F804	F2
F805	F2
F806	F2
F807	F2
F808	F2
F809	D1
F810	D1
F811	D1
F812	D1
F813	B2
F815	B2
F816	B2
F817	C2
F818	C2
F819	C2
F820	C2
F821	C2
F826	D8
F827	H4
F828	C9
F829	G11

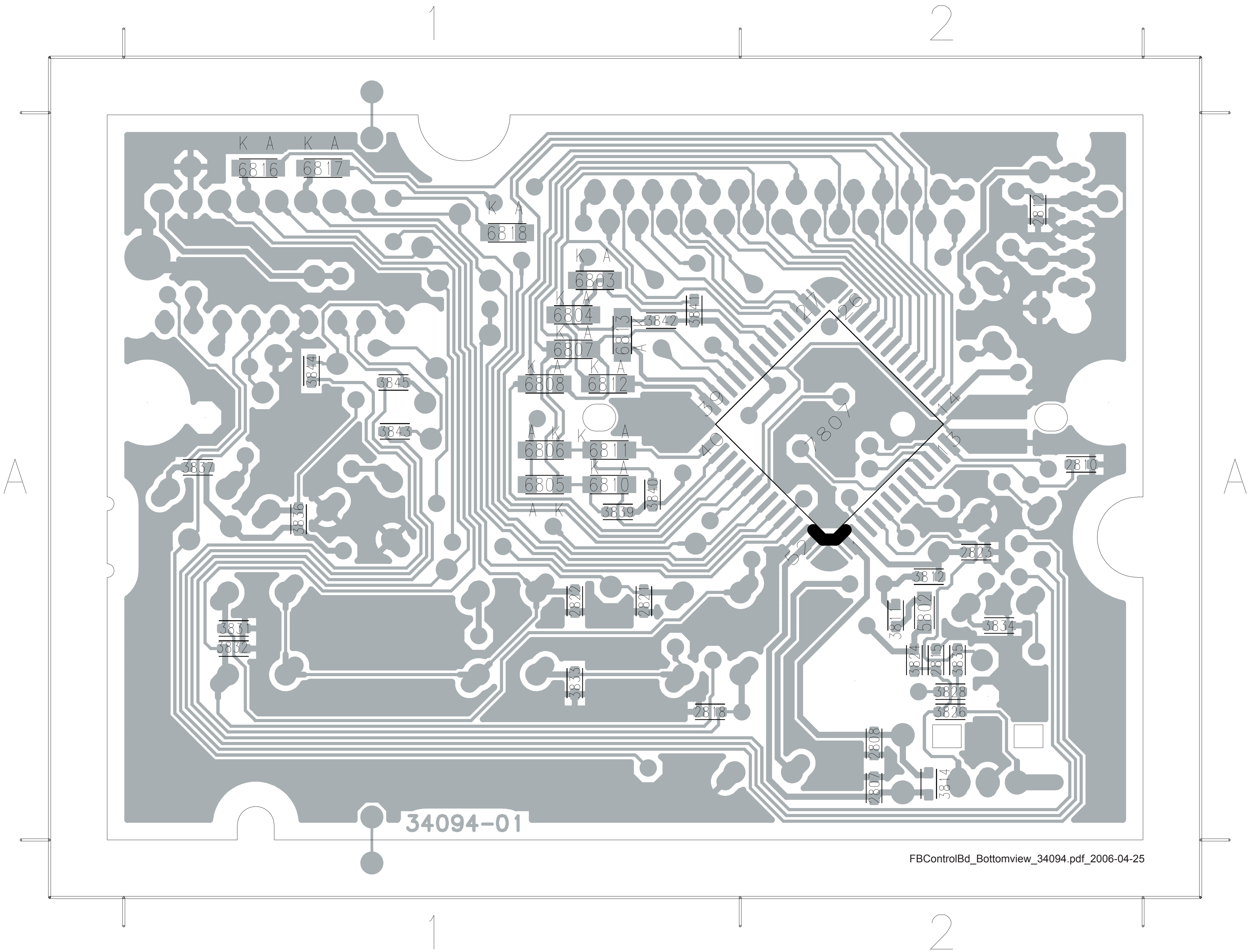
Layout: FB Control Board (Top view)


1
2
A
A
1501
1502
25
26
2
1503
1
8
1802
1504
1
9
2801
3801
7801
7803
3803
3804
5801
1800
3808
3822
2802
7804
3807
3806
3810
2809
2811
3847
3820
3848
3823
3846
6500
A
K
K
A
6815
6814
3825
6809
2812
2813
2806
2804
3819
3816
3818
3809
2814
7806
7805
7802
3805
3802
3800
4801
2803
5800
3838
3830
2817
3829
3827
7811
7810
7809
2816
2819
2800
2820
1514
1515
1516
1517
1518
1519
1520
7500
2805
1800
2
1
3

FBControlBd_Topview_34094.pdf_2006-04-25

1501	A1
1502	A1
1503	A2
1504	A2
1514	A1
1515	A2
1516	A2
1517	A2
1518	A2
1519	A2
1520	A2
1800	A1
1802	A2
2800	A2
2801	A1
2802	A1
2803	A1
2804	A2
2805	A1
2806	A1
2809	A1
2811	A1
2813	A2
2814	A2
2816	A2
2817	A2
2819	A2
2820	A2
3800	A2
3801	A1
3802	A2
3803	A1
3804	A1
3805	A2
3806	A1
3807	A1
3808	A1
3809	A2
3810	A1
3813	A2
3815	A2
3816	A2
3817	A1
3818	A2
3819	A2
3820	A1
3821	A2
3822	A1
3823	A1
3825	A1
3827	A2
3829	A2
3830	A2
3838	A2
3846	A1
3847	A1
3848	A1
4800	A1
4801	A2
5800	A2
5801	A1
6500	A1
6809	A2
6814	A1
6815	A1
7500	A1
7800	A2
7801	A1
7802	A2
7803	A1
7804	A1
7805	A2
7806	A2
7809	A2
7810	A2
7811	A2

Layout: FB Control Board (Bottom view)

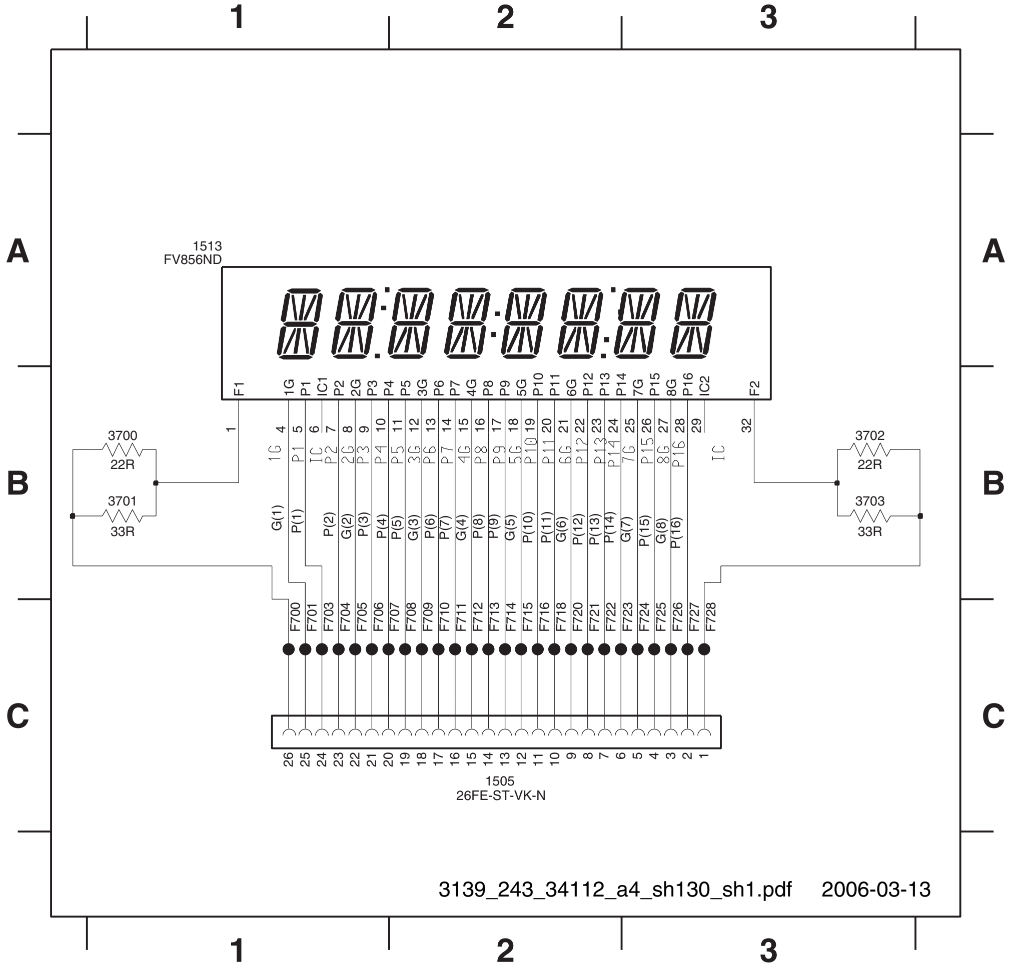

1
2
A
A
1
2
34094-01
6816
6817
6818
6803
6804
6807
6813
3842
3841
6808
6812
3844
3845
3843
3837
3836
6806
6811
6805
6810
3840
3839
7807
2812
2810
2823
3812
3811
5802
3834
3824
2815
3835
3828
3826
2808
2807
3814
2822
2821
3831
3832
3833
2818
K
A

FBControlBd_Bottomview_34094.pdf_2006-04-25

2807	A2	7807	A2
2808	A2		
2810	A2		
2812	A2		
2815	A2		
2818	A1		
2821	A1		
2822	A1		
2823	A2		
3811	A2		
3812	A2		
3814	A2		
3824	A2		
3826	A2		
3828	A2		
3831	A1		
3832	A1		
3833	A1		
3834	A2		
3835	A2		
3836	A1		
3837	A1		
3839	A1		
3840	A1		
3841	A1		
3842	A1		
3843	A1		
3844	A1		
3845	A1		
5802	A2		
6803	A1		
6804	A1		
6805	A1		
6806	A1		
6807	A1		
6808	A1		
6810	A1		
6811	A1		
6812	A1		
6813	A1		
6816	A1		
6817	A1		
6818	A1		

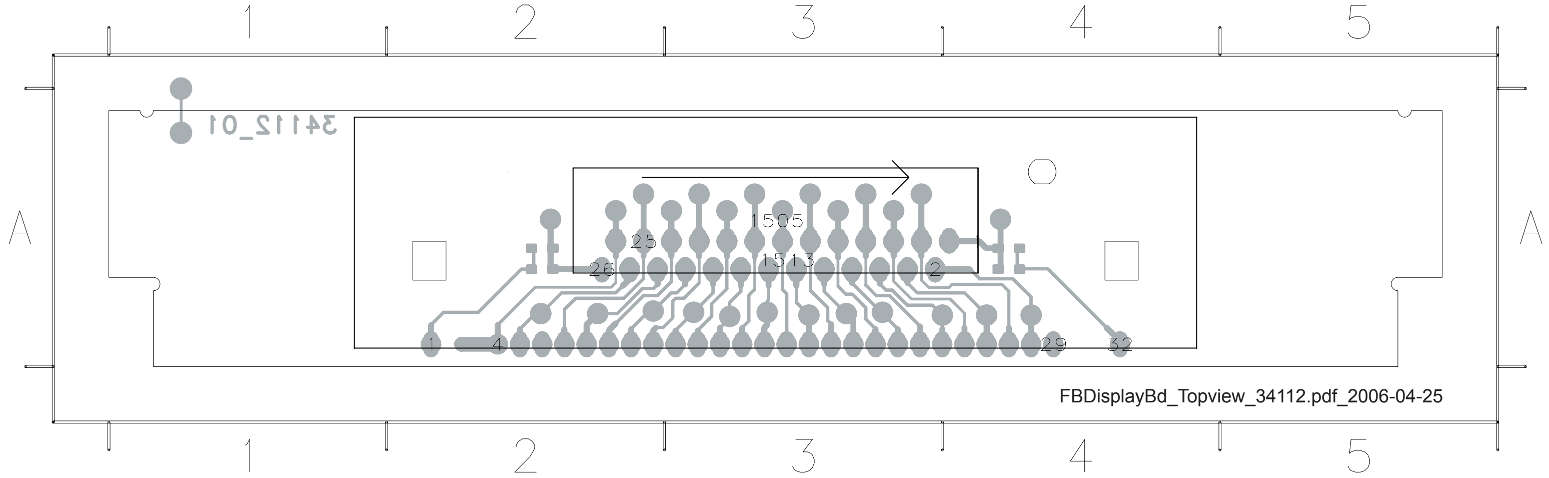
FB Display Board: Circuit Diagram

1505 C2	3702 B3	F703 C1	F707 C2	F711 C2	F715 C2	F721 C2	F725 C3
1513 A1	3703 B3	F704 C1	F708 C2	F712 C2	F716 C2	F722 C2	F726 C3
3700 B1	F700 C1	F705 C1	F709 C2	F713 C2	F718 C2	F723 C3	F727 C3
3701 B1	F701 C1	F706 C1	F710 C2	F714 C2	F720 C2	F724 C3	F728 C3


1
2
3
A
B
C
1513
FV856ND
F1
F2
3700
22R
3701
33R
3702
22R
3703
33R
F700 … F728
1505
26FE-ST-VK-N

3139_243_34112_a4_sh130_sh1.pdf 2006-03-13

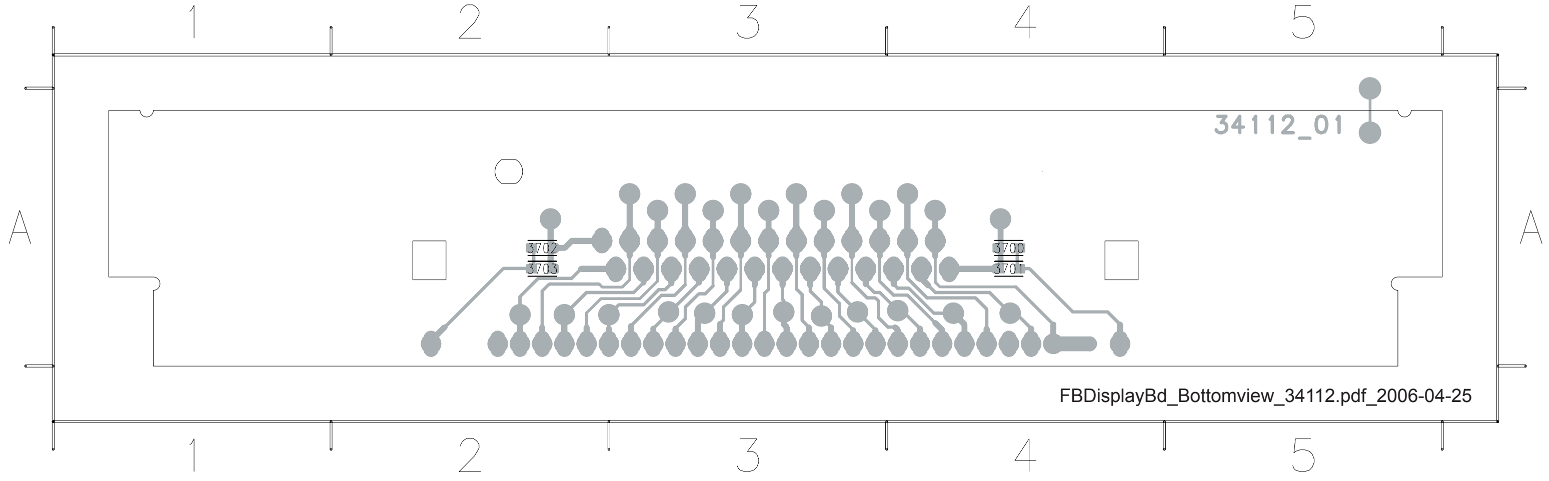
Layout: FB Display Board(Top view)


1
2
3
4
5
A
34112_01
1505
1513
25
26
1
4
29
32

FBDisplayBd_Topview_34112.pdf_2006-04-25

1505 A3
1513 A3

Layout: FB Display Board(Bottom view)

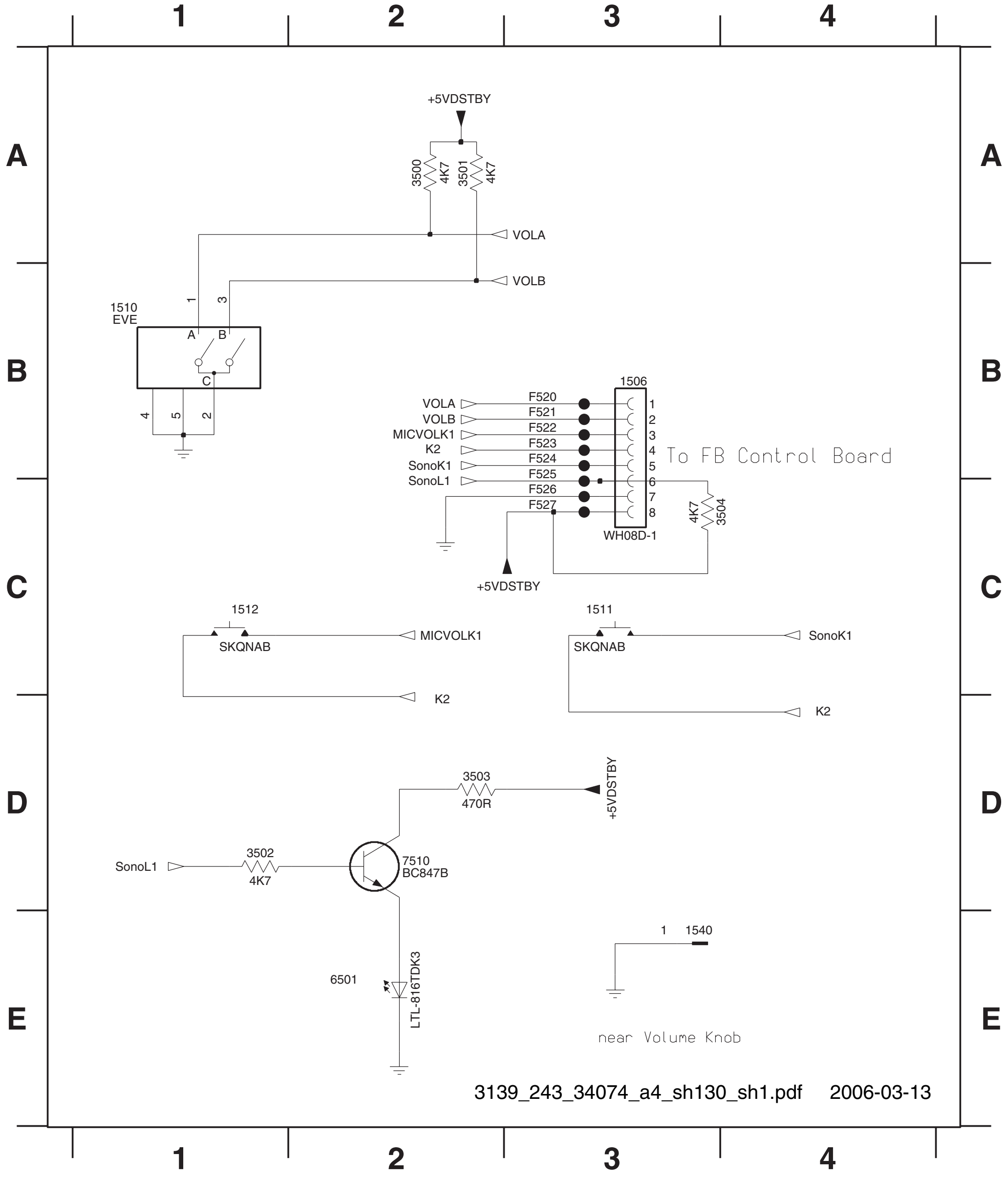

1
2
3
4
5
A
34112_01
3702
3703
3700
3701

FBDisplayBd_Bottomview_34112.pdf_2006-04-25

3700 A4
3701 A4
3702 A2
3703 A2

FB Volume: Circuit Diagram

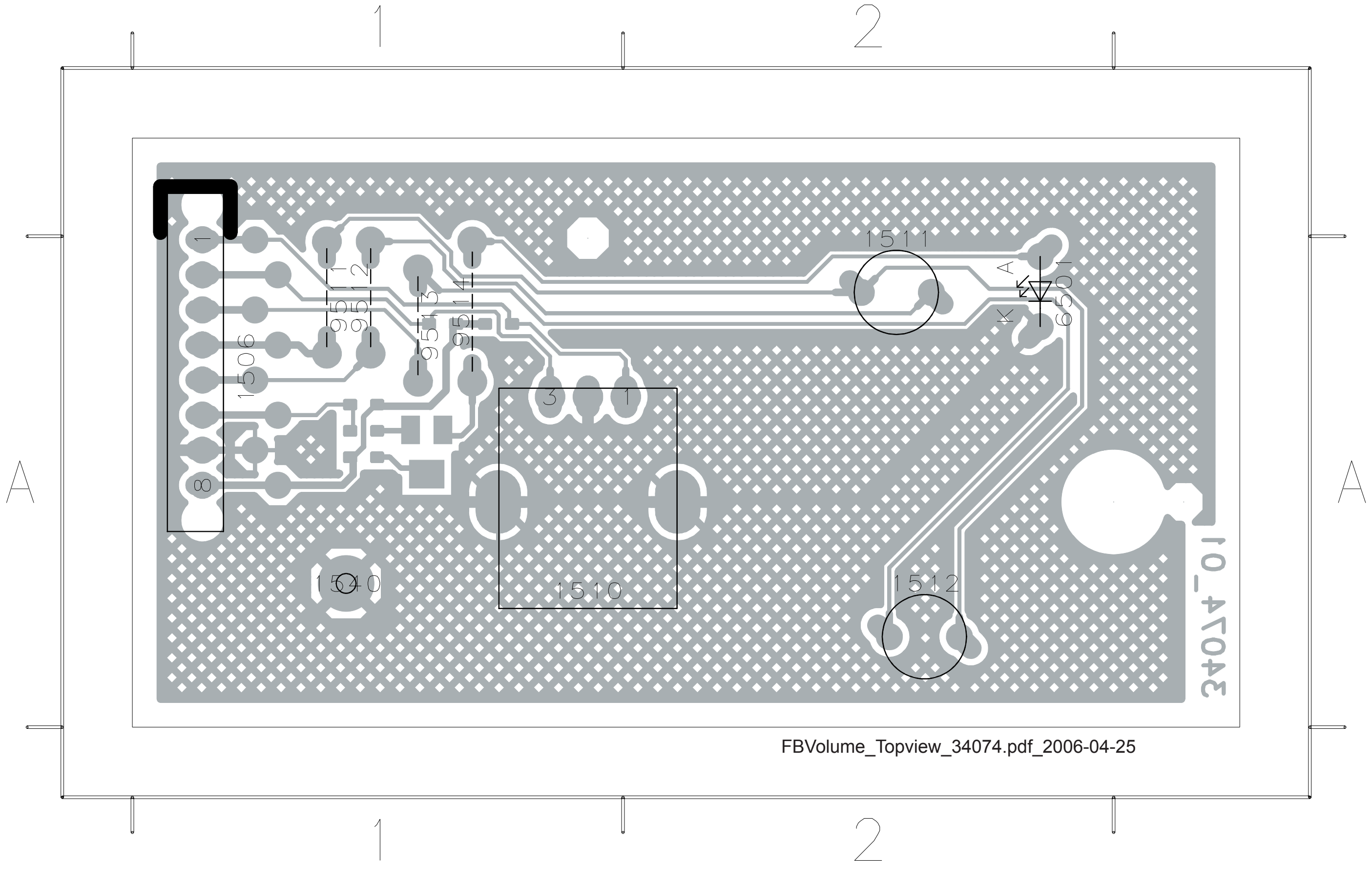
1506 B3	1511 C3	1540 E3	3501 A2	3503 D2	6501 E2	F520 B3	F522 B3	F524 B3	F526 C3
1510 B1	1512 C1	3500 A2	3502 D1	3504 C3	7510 D2	F521 B3	F523 B3	F525 B3	F527 C3


1
2
3
4
A
B
C
D
E
+5VDSTBY
3500
4K7
3501
4K7
VOLA
VOLB
1510
EVE
A
B
C
1
3
4
5
2
1506
VOLA
VOLB
MICVOLK1
K2
SonoK1
SonoL1
F520
F521
F522
F523
F524
F525
F526
F527
1
2
3
4
5
6
7
8
WH08D-1
To FB Control Board
4K7
3504
+5VDSTBY
1512
SKQNAB
MICVOLK1
K2
1511
SKQNAB
SonoK1
K2
3503
470R
+5VDSTBY
SonoL1
3502
4K7
7510
BC847B
6501
LTL-816TDK3
1
1540
near Volume Knob

3139_243_34074_a4_sh130_sh1.pdf 2006-03-13

Layout: FB Volume(Top view)

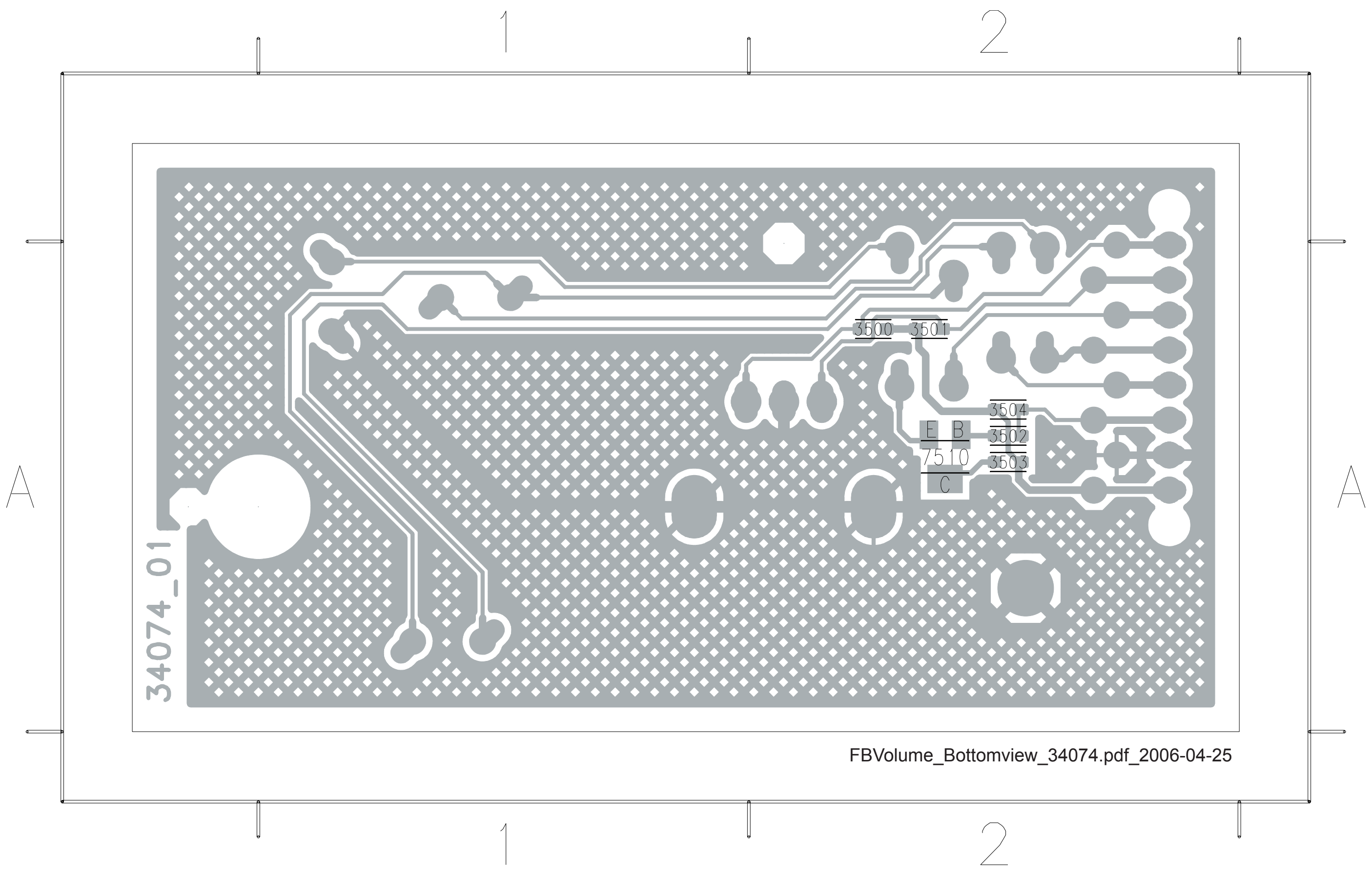
1506	A1
1510	A1
1511	A2
1512	A2
1540	A1
6501	A2
9511	A1
9512	A1
9513	A1
9514	A1


1
2
A
1506
8
9511
9512
9513
9514
1511
A
K
6501
3
1
1540
1510
1512
34074_01

FBVolume_Topview_34074.pdf_2006-04-25

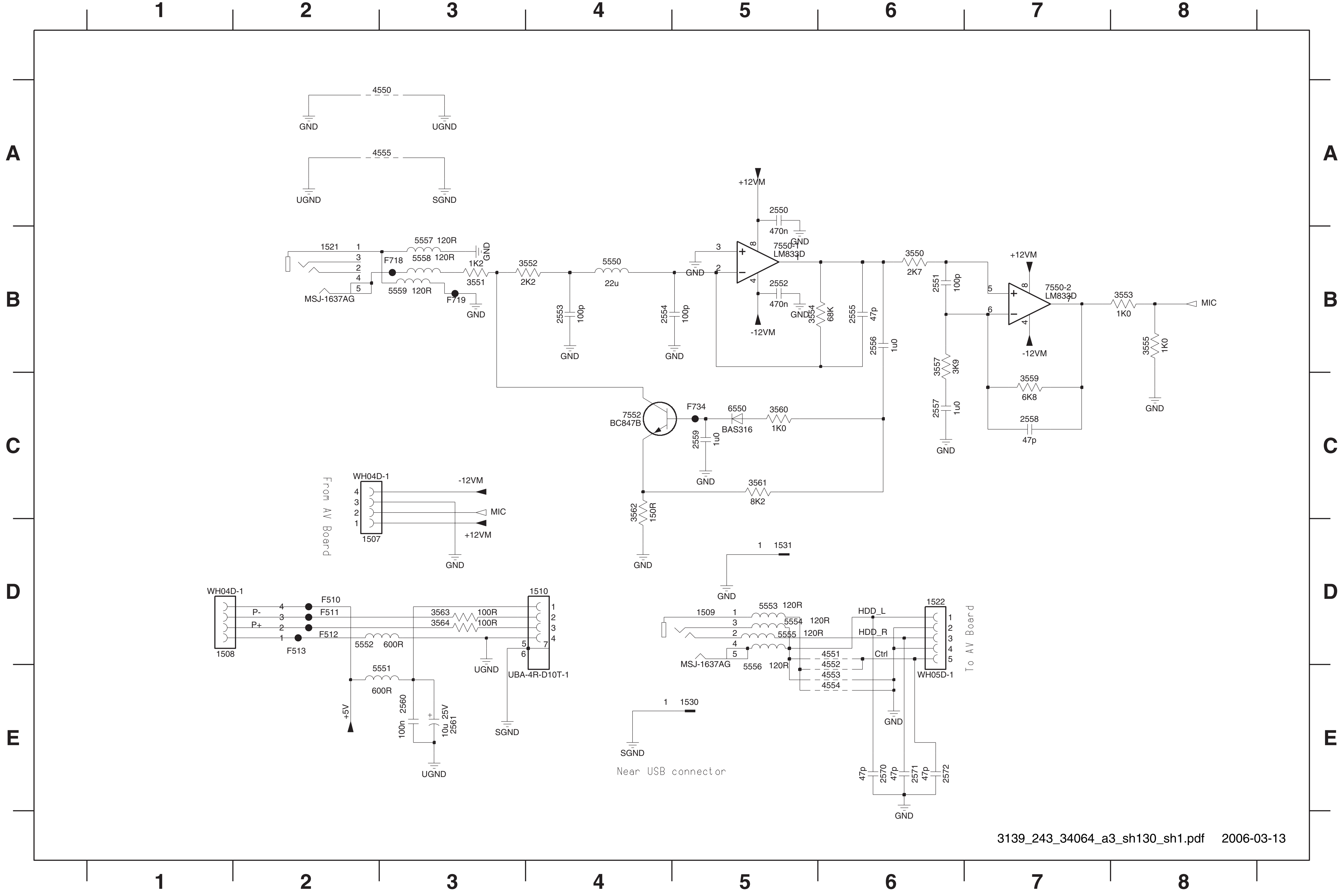
Layout: FB Volume(Bottom view)

3500	A2
3501	A2
3502	A2
3503	A2
3504	A2
7510	A2


1
2
A
3500
3501
3504
3502
3503
E
B
7510
C
34074_01

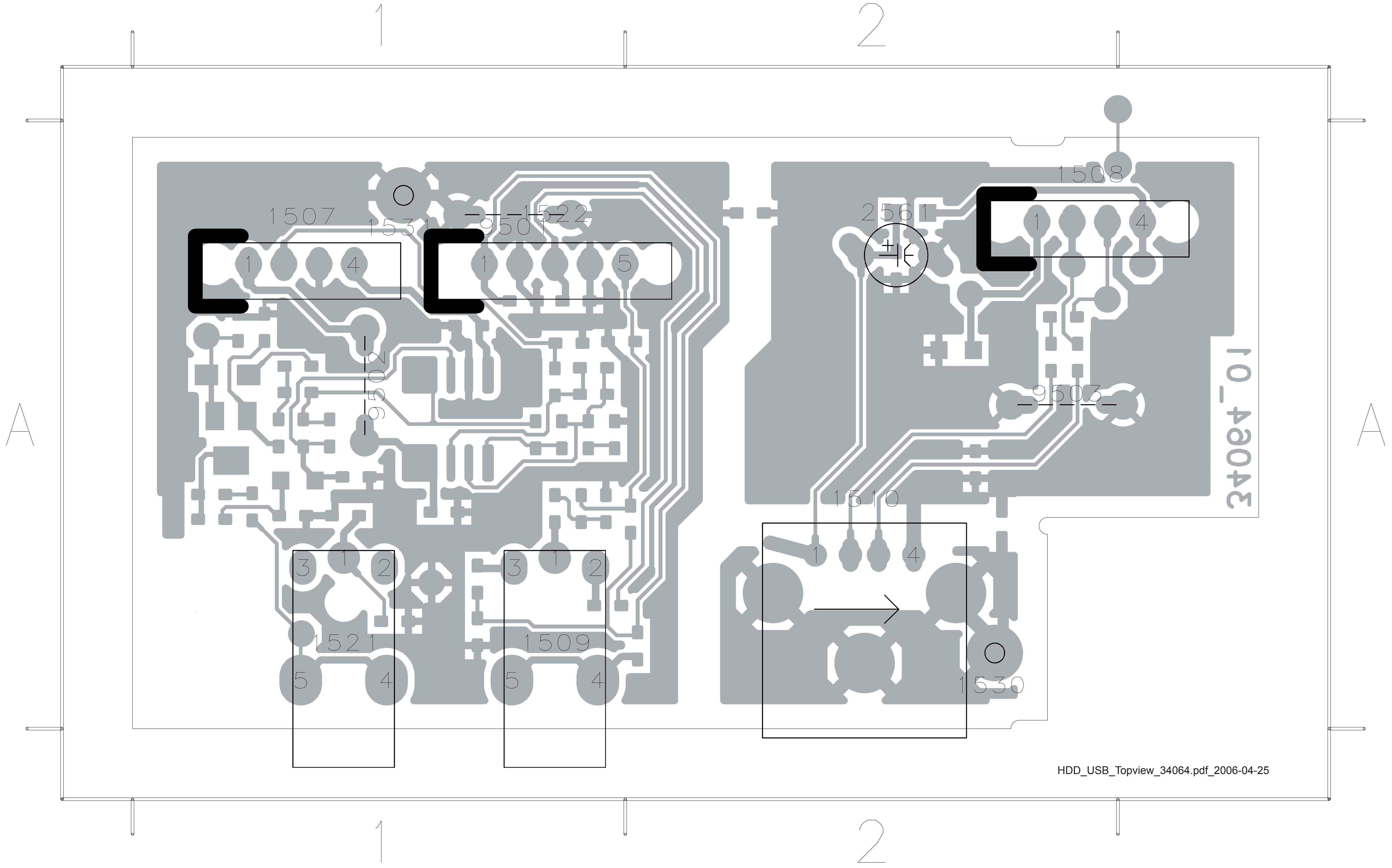
FBVolume_Bottomview_34074.pdf_2006-04-25

HDD USB: Circuit Diagram


1
2
3
4
5
6
7
8
A
B
C
D
E
4550
GND
UGND
4555
UGND
SGND
+12VM
2550
470n
GND
7550-1
LM833D
1521
1
3
2
4
5
MSJ-1637AG
5557 120R
5558 120R
5559 120R
F718
F719
1K2
3551
GND
3552
2K2
5550
22u
2553
100p
2554
100p
GND
2552
470n
3554
68K
2555
47p
2556
1u0
-12VM
3550
2K7
2551
100p
3557
3K9
2557
1u0
7550-2
LM833D
3553
1K0
MIC
3555
1K0
3559
6K8
2558
47p
7552
BC847B
F734
6550
BAS316
3560
1K0
2559
1u0
3561
8K2
3562
150R
From AV Board
WH04D-1
1507
-12VM
MIC
+12VM
WH04D-1
1508
P-
P+
F510
F511
F512
F513
3563 100R
3564 100R
5552 600R
5551 600R
1510
UBA-4R-D10T-1
+5V
2560
100n
2561
10u 25V
UGND
SGND
1531
1509
5553 120R
5554 120R
5555 120R
5556 120R
4551
4552
4553
4554
HDD_L
HDD_R
Ctrl
1522
WH05D-1
To AV Board
1530
Near USB connector
2570 47p
2571 47p
2572 47p
3139_243_34064_a3_sh130_sh1.pdf 2006-03-13

1507	D2
1508	D1
1509	D5
1510	D4
1521	B2
1522	D6
1530	E5
1531	D5
2550	A5
2551	B6
2552	B5
2553	B4
2554	B4
2555	B6
2556	B6
2557	C6
2558	C7
2559	C5
2560	E3
2561	E3
2570	E6
2571	E6
2572	E6
3550	B6
3551	B3
3552	B4
3553	B8
3554	B5
3555	B8
3557	B6
3559	C7
3560	C5
3561	C5
3562	C4
3563	D3
3564	D3
4550	A3
4551	D6
4552	E6
4553	E6
4554	E6
4555	A3
5550	B4
5551	E3
5552	D2
5553	D5
5554	D5
5555	D5
5556	E5
5557	B3
5558	B3
5559	B3
6550	C5
7550-1	B5
7550-2	B7
7552	C4
F510	D2
F511	D2
F512	D2
F513	D2
F718	B3
F719	B3
F734	C5

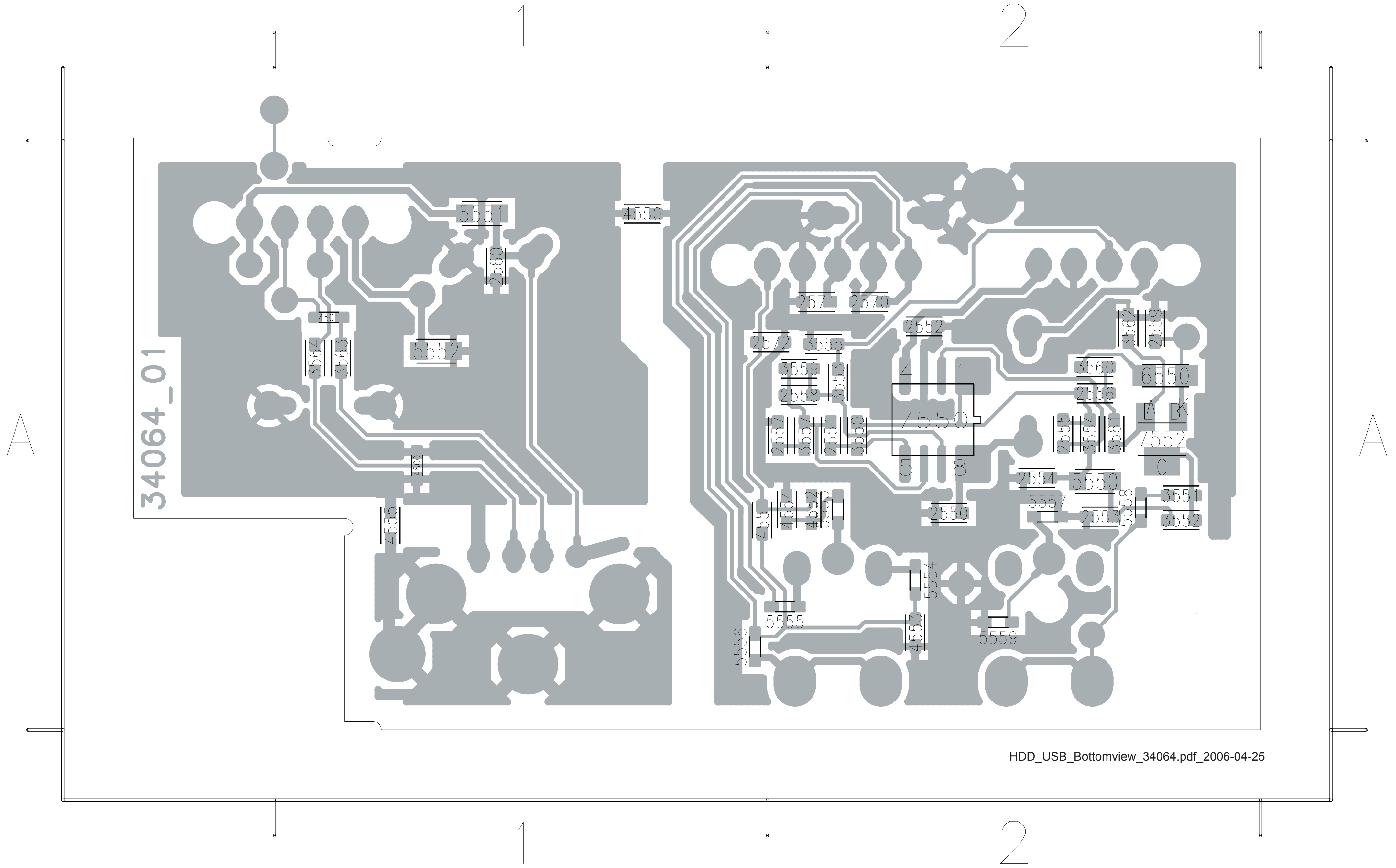
Layout: HDD USB (Top view)


1
2
A
A
1507
1531
1522
9501
1508
2561
9502
9503
1510
1521
1509
1530
3104 _01
1
2
3
4
5

HDD_USB_Topview_34064.pdf_2006-04-25

1507	A1
1508	A2
1509	A1
1510	A2
1521	A1
1522	A1
1530	A2
1531	A1
2561	A2
9501	A1
9502	A1
9503	A2

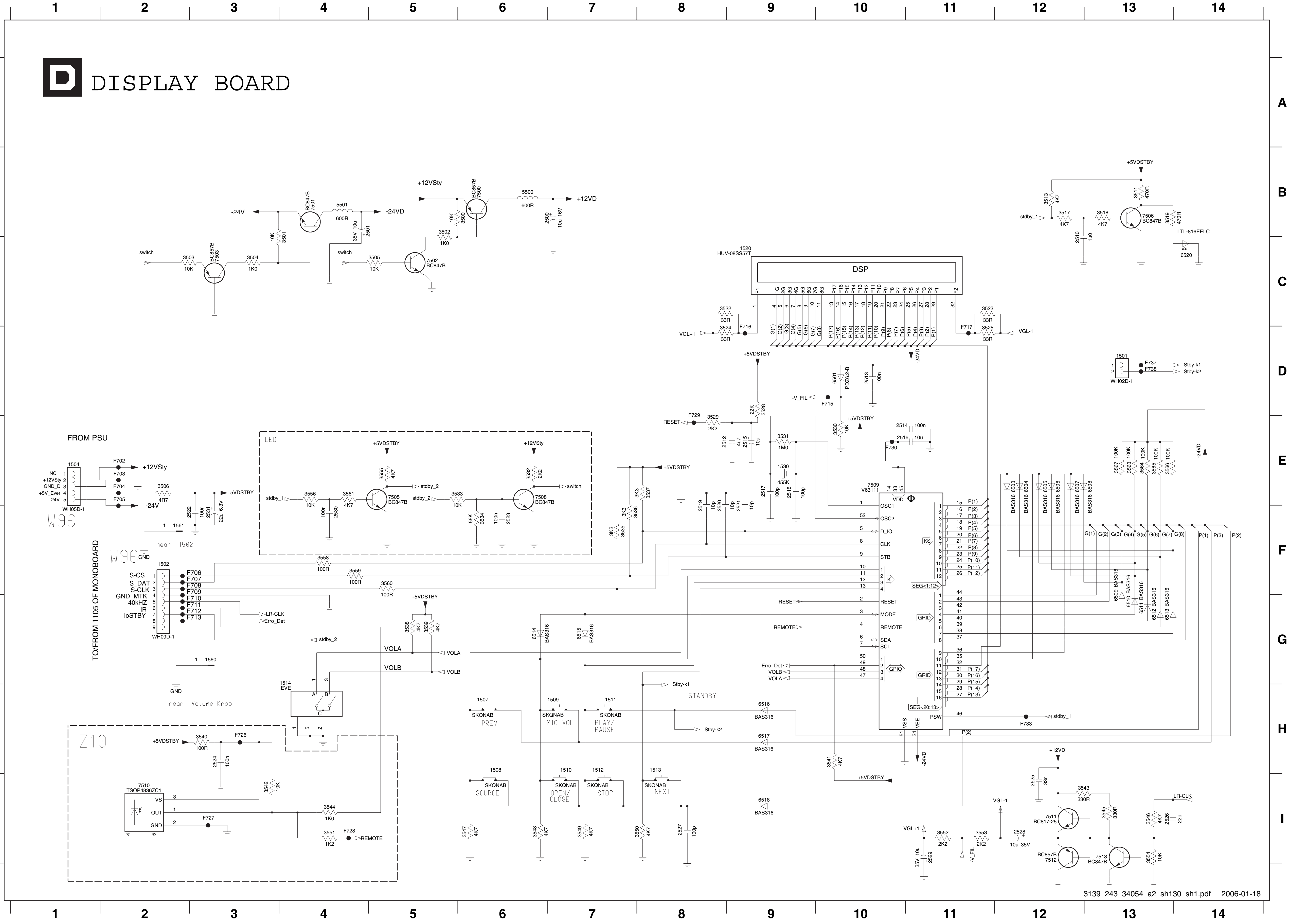
Layout: HDD USB (Bottom view)


1
2
A
34064_01
5551
4550
2560
4501
3564
3563
5552
4800
4555
2571
2570
2552
2572
3555
3559
3553
2558
2557
3557
2551
3550
7550
4
1
5
8
3562
2559
3560
2556
6550
A
K
7552
C
2555
3554
3561
2554
5550
5557
2553
5558
3551
3552
4551
4554
4552
2550
5554
5555
5556
4553
5559

HDD_USB_Bottomview_34064.pdf_2006-04-25

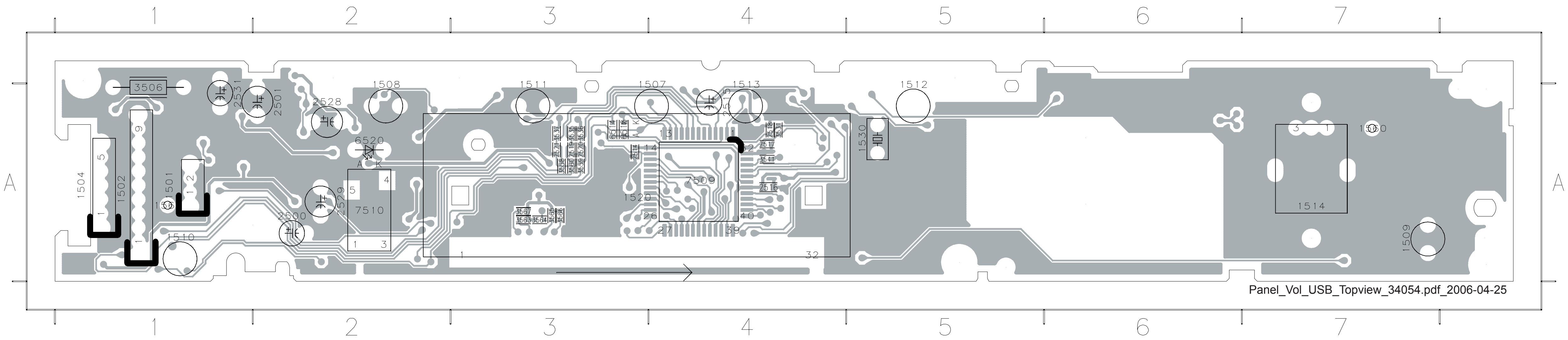
2550	A2
2551	A2
2552	A2
2553	A2
2554	A2
2555	A2
2556	A2
2557	A2
2558	A2
2559	A2
2560	A1
2570	A2
2571	A2
2572	A2
3550	A2
3551	A2
3552	A2
3553	A2
3554	A2
3555	A2
3557	A2
3559	A2
3560	A2
3561	A2
3562	A2
3563	A1
3564	A1
4501	A1
4550	A1
4551	A1
4552	A2
4553	A2
4554	A2
4555	A1
4800	A1
5550	A2
5551	A1
5552	A1
5553	A2
5554	A2
5555	A2
5556	A1
5557	A2
5558	A2
5559	A2
6550	A2
7550	A2
7552	A2

Volume USB: Circuit Diagram


D
DISPLAY BOARD
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I
FROM PSU
1504
WH05D-1
NC
+12VSty
GND_D
+5V_Ever
-24V
F702
F703
F704
F705
+12VSty
-24V
+5VDSTBY
3506 4R7
2522 100n
2531 22u 6.3V
W96
1561
near 1502
GND
TO/FROM 1105 OF MONOBOARD
1502
WH09D-1
S-CS
S_DAT
S-CLK
GND_MTK
40kHZ
IR
ioSTBY
F706
F707
F708
F709
F710
F711
F712
F713
3558 100R
3559 100R
3560 100R
LR-CLK
Erro_Det
stdby_2
1560
near Volume Knob
switch
3503 10K
7503 BC857B
3504 1K0
-24V
7501 BC847B
10K 3501
5501 600R
35V 10u 2501
-24VD
+12VSty
7500 BC857B
5500 600R
2500 10u 16V
+12VD
10K 3500
3502 1K0
3505 10K
7502 BC847B
LED
+5VDSTBY
3555 4K7
stdby_2
stdby_1
3556 10K
2530 100n
3561 4K7
7505 BC847B
3533 10K
3534 56K
2523 100n
3532 2K2
7508 BC847B
+12VSty
switch
+5VDSTBY
3538 4K7
3539 4K7
VOLA
VOLB
1514 EVE
Z10
3540 100R
F726
2524 100n
3542 10K
7510 TSOP4836ZC1
VS
OUT
GND
F727
3544 1K0
3551 1K2
F728
REMOTE
1507 SKQNAB PREV
1508 SKQNAB SOURCE
1509 SKQNAB MIC_VOL
1510 SKQNAB OPEN/CLOSE
1511 SKQNAB PLAY/PAUSE
1512 SKQNAB STOP
1513 SKQNAB NEXT
6514 BAS316
6515 BAS316
3547 4K7
3548 4K7
3549 4K7
3550 4K7
2527 100p
Stby-k1
Stby-k2
STANDBY
6516 BAS316
6517 BAS316
6518 BAS316
3535 3K3
3536 3K3
3537 3K3
1520 HUV-08SS57T
DSP
3522 33R
3524 33R
F716
VGL+1
3523 33R
3525 33R
F717
VGL-1
+5VDSTBY
-24VD
6501 PDZ6.2-B
2513 100n
-V_FIL
F715
RESET
F729
3529 2K2
3528 22K
2512 4u7
2515 10u
3530 10K
3531 1M0
1530 455K
2517 100p
2518 100p
2514 100n
2516 10u
F730
2519 10p
2520 10p
2521 10p
7509 V63111
VDD
OSC1
OSC2
D_IO
CLK
STB
RESET
MODE
REMOTE
SDA
SCL
Erro_Det
VOLB
VOLA
GPIO
K5
K
SEG<1:12>
GRID
SEG<20:13>
PSW
VSS
VEE
F733
stdby_1
3541 4K7
+5VDSTBY
BAS316 6503
BAS316 6504
BAS316 6505
BAS316 6506
BAS316 6507
BAS316 6508
3567 100K
3563 100K
3564 100K
3565 100K
3566 100K
6509 BAS316
6510 BAS316
6511 BAS316
6512 BAS316
6513 BAS316
G(1) G(2) G(3) G(4) G(5) G(6) G(7) G(8)
P(1) P(3) P(2)
+5VDSTBY
3513 4K7
3511 470R
3517 4K7
3518 4K7
7506 BC847B
3519 470R
LTL-816EELC
6520
2510 1u0
1501 WH02D-1
F737
F738
Stby-k1
Stby-k2
+12VD
2525 33n
3543 330R
7511 BC817-25
3545 330R
7512 BC857B
7513 BC847B
3546 4K7
2526 22p
LR-CLK
3554 10K
VGL-1
VGL+1
3552 2K2
3553 2K2
2528 10u 35V
2529 35V 10u
-V_FIL
3139_243_34054_a2_sh130_sh1.pdf 2006-01-18

1501	D13
1502	F2
1504	E1
1507	H6
1508	H6
1509	H7
1510	H7
1511	H7
1512	H7
1513	H8
1514	H4
1520	C9
1530	E9
1560	G3
1561	F2
2500	B7
2501	B4
2510	C12
2512	E8
2513	D10
2514	E10
2515	E9
2516	E10
2517	E9
2518	E9
2519	F8
2520	F8
2521	F9
2522	F3
2523	F6
2524	H3
2525	I12
2526	I13
2527	I8
2528	I12
2529	I11
2530	F4
2531	F3
3500	B6
3501	C4
3502	B5
3503	C2
3504	C3
3505	C5
3506	E2
3511	B13
3513	B12
3517	B12
3518	B13
3519	B13
3522	C8
3523	C11
3524	D8
3525	D11
3528	D9
3529	E8
3530	E10
3531	E9
3532	E6
3533	E5
3534	F6
3535	F7
3536	F7
3537	E8
3538	G5
3539	G5
3540	H3
3541	H10
3542	I3
3543	I12
3544	I4
3545	I13
3546	I13
3547	I6
3548	I6
3549	I7
3550	I8
3551	I4
3552	I11
3553	I11
3554	I13
3555	E5
3556	E4
3558	F4
3559	F4
3560	F5
3561	E4
3563	E13
3564	E13
3565	E13
3566	E13
3567	E13
5500	B6
5501	B4
6501	D10
6503	E12
6504	E12
6505	E12
6506	E12
6507	E12
6508	E13
6509	G13
6510	G13
6511	G13
6512	G13
6513	G13
6514	G6
6515	G7
6516	H9
6517	H9
6518	I9
6520	C14
7500	B6
7501	B4
7502	C5
7503	C3
7505	E5
7506	B13
7508	E6
7509	E10
7510	I2
7511	I12
7512	I12
7513	I13
F702	E2
F703	E2
F704	E2
F705	E2
F706	F3
F707	F3
F708	F3
F709	F3
F710	G3
F711	G3
F712	G3
F713	G3
F715	D10
F716	D9
F717	D11
F726	H3
F727	I3
F728	I4
F729	E8
F730	E10
F733	H12
F737	D13
F738	D13

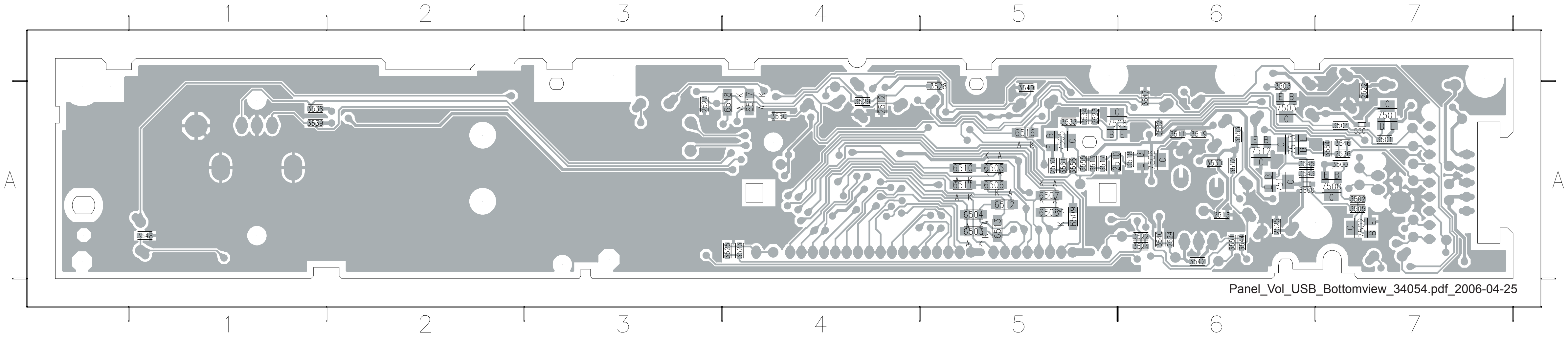
Layout: Volume USB (Top view)


1
2
3
4
5
6
7
A
3506
2531
2501
2528
1508
1511
1507
1513
1512
6520
A K
1504
1502
1501
7510
2529
2500
1510
1520
7509
1530
1514
1560
1509
1
32

Panel_Vol_USB_Topview_34054.pdf_2006-04-25

1501	A1	3531	A4
1502	A1	3535	A3
1504	A1	3536	A3
1507	A4	3537	A3
1508	A2	3541	A4
1509	A7	3558	A3
1510	A1	3559	A3
1511	A3	3560	A3
1512	A5	3563	A3
1513	A4	3564	A3
1514	A7	3565	A3
1520	A3	3566	A3
1530	A5	3567	A3
1560	A7	6514	A3
1561	A1	6515	A3
2500	A2	6520	A2
2501	A2	7509	A4
2514	A3	7510	A2
2515	A4		
2516	A4		
2517	A4		
2518	A4		
2519	A3		
2520	A3		
2521	A3		
2528	A2		
2529	A2		
2531	A1		
3506	A1		

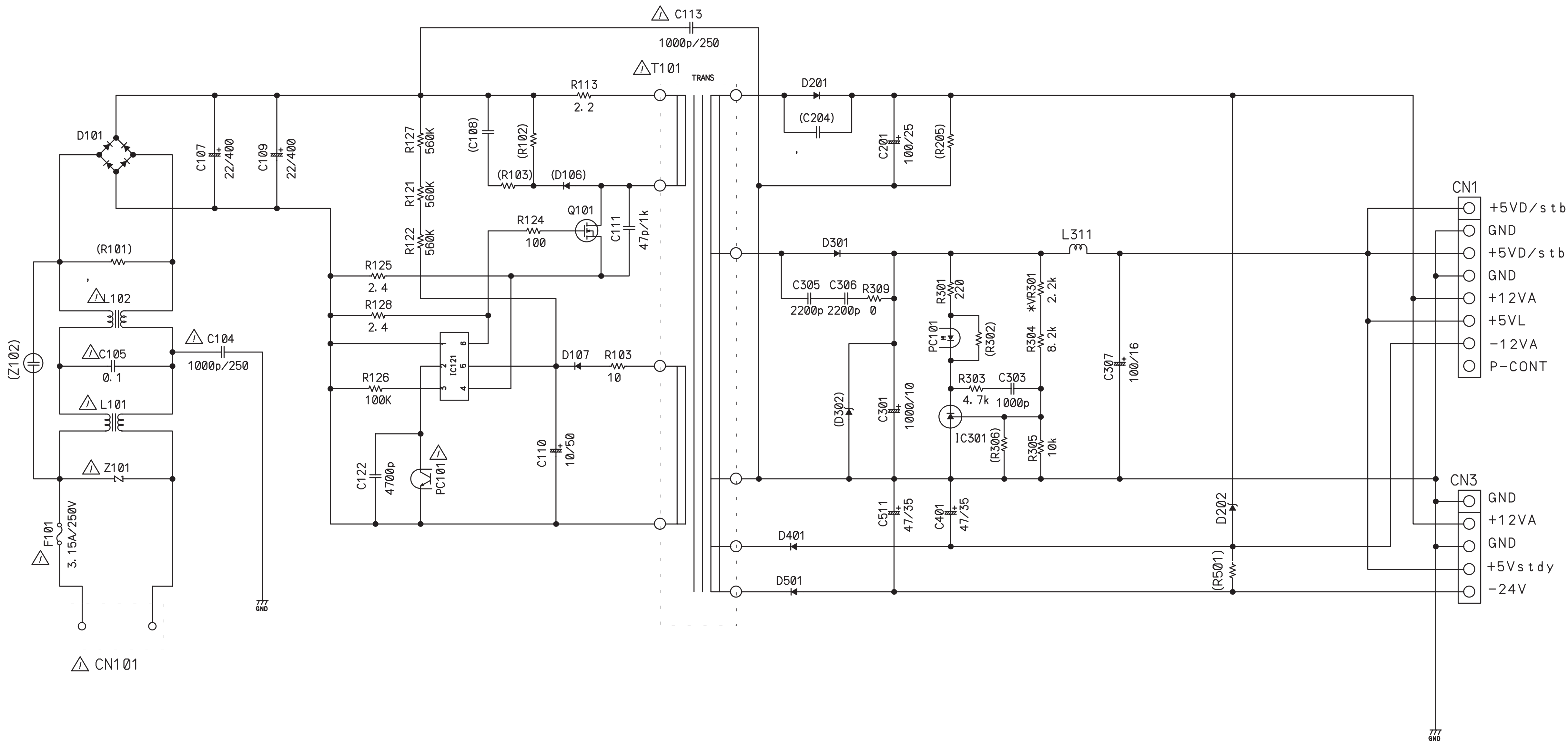
Layout: Volume USB (Bottom view)


1
2
3
4
5
6
7
A
7500
7501
7502
7505
7506
7512

Panel_Vol_USB_Bottomview_34054.pdf_2006-04-25

2510	A5	3533	A5	6509	A5
2512	A4	3534	A5	6510	A5
2513	A6	3538	A1	6511	A5
2522	A7	3539	A1	6512	A5
2523	A5	3540	A6	6513	A5
2524	A6	3542	A6	6516	A5
2525	A6	3543	A6	6517	A4
2526	A7	3544	A6	6518	A4
2527	A3	3545	A6	7500	A7
2530	A5	3546	A7	7501	A7
3500	A7	3547	A6	7502	A7
3501	A7	3548	A1	7503	A6
3502	A7	3549	A5	7505	A5
3503	A6	3550	A4	7506	A6
3504	A7	3551	A6	7508	A5
3505	A7	3552	A6	7511	A6
3511	A6	3553	A6	7512	A6
3513	A5	3554	A7	7513	A6
3517	A5	3555	A5		
3518	A6	3556	A5		
3519	A6	3561	A5		
3522	A6	5500	A6		
3523	A4	5501	A7		
3524	A6	6503	A5		
3525	A4	6504	A5		
3528	A5	6505	A5		
3529	A4	6506	A5		
3530	A6	6507	A5		
3532	A6	6508	A5		

For Information Only: PSU Module


C113
1000p/250
T101
TRANS
R113
2.2
D201
(C204)
C201
100/25
(R205)
D101
C107
22/400
C109
22/400
R127
560K
(C108)
(R102)
(R103)
(D106)
R121
560K
R124
100
Q101
C111
47p/1k
R122
560K
(R101)
L102
R125
2.4
R128
2.4
C104
1000p/250
(Z102)
C105
0.1
IC121
D107
R103
10
R126
100K
L101
C110
10/50
C122
4700p
PC101
Z101
F101
3.15A/250V
GND
CN101
D301
C305
C306
R309
2200p
2200p
0
R301
220
PC101
(R302)
VR301
2.2k
R304
8.2k
L311
C307
100/16
(D302)
C301
1000/10
R303
4.7k
C303
1000p
IC301
(R306)
R305
10k
C511
47/35
C401
47/35
D401
D501
D202
(R501)
CN1
+5VD/stby
GND
+5VD/stby
GND
+12VA
+5VL
-12VA
P-CONT
CN3
GND
+12VA
GND
+5Vstdy
-24V
GND

D101	D1UBA80
D107	PR1003, RGP10D
IC121	SG6848
Q101	FQI2N80
PC101	LTV-817M, PC123, PS2561
D201, D401	PR1003, RI103
D202	MTZ30, MA4300
D301	SB560,
D501	PR1005, RL105
IC301	TL431, MM1431A

PSU06P15-srv1919ww-Circuit.pdf 2006-04-25

MODEL SRV1919WW
CIRCUIT DIAGRAM
SYM. GROUP NO. R-68
DWG. NO. 1919

Notes:

8. Exploded View of the Set

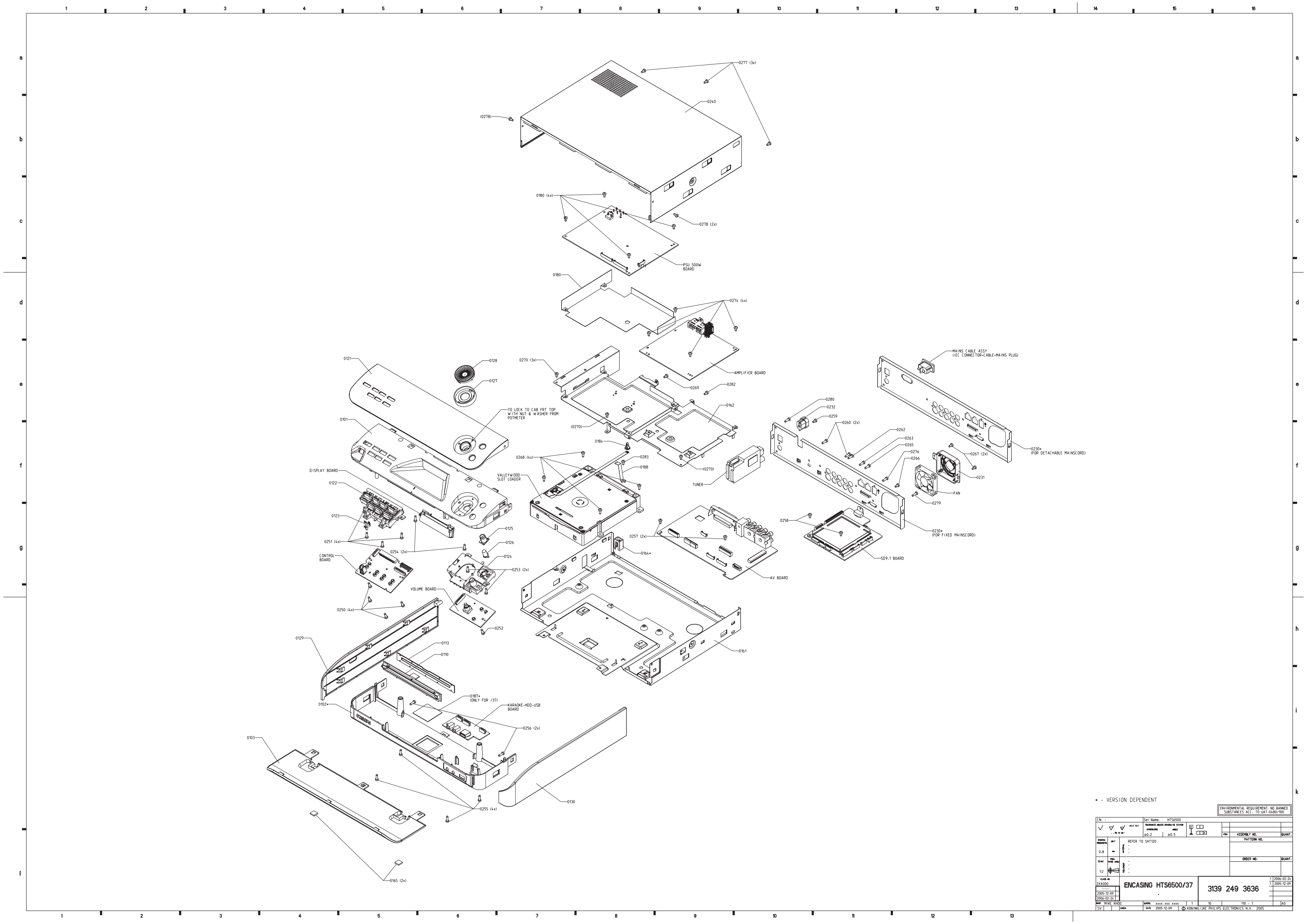

0277 (3x)
0240
(0278)
0180 (4x)
0278 (2x)
PSU 500W BOARD
0180
0274 (4x)
AMPLIFIER BOARD
0269
0282
0270 (3x)
(0270)
0162
(0270)
TUNER
0184
0283
0188
0268 (4x)
VALLEYWOOD SLOT LOADER
0257 (2x)
0164*
AV BOARD
0161
0121
0128
0127
TO LOCK TO CAB FRT TOP WITH NUT & WASHER FROM POTMETER
0101
DISPLAY BOARD
0122
0123
0251 (4x)
0254 (2x)
0125
0126
0124
0253 (2x)
CONTROL BOARD
VOLUME BOARD
0250 (4x)
0252
0129
0113
0110
0187* (ONLY FOR /37)
KARAOKE-HDD-USB BOARD
0102*
0256 (2x)
0103
0255 (4x)
0130
0165 (2x)
MAINS CABLE ASSY (IEC CONNECTOR+CABLE+MAINS PLUG)
0280
0232
0259
0260 (2x)
0262
0263
0265
0276
0266
0267 (2x)
0231
FAN
0279
0230* (FOR DETACHABLE MAINSCORD)
0230* (FOR FIXED MAINSCORD)
0258
SD9.1 BOARD
* - VERSION DEPENDENT
ENVIRONMENTAL REQUIREMENT: NO BANNED SUBSTANCES ACC. TO UAT-0480/100
CN: -
Set Name: HTS6500
TOLERANCES UNLESS OTHERWISE STATED
DIMENSIONS ±0.2
ANGLE ±0.5
ITEM
ASSEMBLY NO.
QUANT.
PATTERN NO.
GENERAL ROUGHNESS 0.8
UNIT mm
MATERIAL
REFER TO SHT120
SCALE 1:2
PROJ THIRD ANGLE
TREATMENT
ORDER NO.
QUANT.
CLASS NO. 2XX000
2005-12-09
2006-02-24
ENCASING HTS6500/37
3139 249 3636
1 2006-02-24
1 2005-12-09
NAME MIKE KHOO
SUPERS xxxx xxx xxxx
1
10
110 - 1
A0
SV
CHECK
DATE 2005-12-09
© KONINKLIJKE PHILIPS ELECTRONICS N.V. 2005

Figure 8-1

HTS6510
MISCELLANEOUS

0110	3139 244 13921		COVER DVD SLOT HTS6510
0190	2822 031 00048		FAN 12VDC 0.5W 3700RPM B
0231	3139 244 11011		COVER FAN HTS3105
0232	4822 532 60948		BUSH
0325	3139 247 13011		BOX SPK ASSY SW6500 E
0326	3139 247 13291		BOX SPK ASSY CS6510 E
0337	2422 076 00546		FM AERIAL 24AWG BK B
0338	2422 549 45813		ANT AM LOOP 039S20014 B
0341	2422 549 00902		REMOTE CONTR HTS4550-USB-KOK B
0344	2422 070 98236	⚠	MAINSCORD UK 5A 1M8 VH BK B /05 Only
0344	4822 321 11499	⚠	MAINSCORD 2.0M - EU /12 Only
0351	2422 076 00468		CBLE SCART 1M1 SCART 21P BK B
0354	2422 076 00791		CBLE PHONE 1M0 PHONE 3P WH B
1010	3139 248 00321		LOADER ASSY VALLY-SONY HTS4550
1020	2422 542 00031		TUN A F ENG07806QRF EUR B
1030	3139 247 12831	⚠	PSU 06T500 EU SRA1942EK MIT
1040	3139 247 12241		MODULE AMP-05-02B 500W (SONO)
1061	3139 248 87902		PCBAS AV BOARD EUROPE HTS6500
1070	3139 248 88211		PCBAS FB VOL-USB BD HTS6510
1111	3139 248 88161		PCBAS FB CONTROL BD HTS6500
1121	3139 248 87832		PCBAS FB DISPLAY HTS4550
1130	3139 248 87491		PCBAS 9.1 HTS6500
8000	3139 111 02721		FFC FOIL 10P/080/10P AD
8002	3139 241 02311		FFC FOIL 21P/280/21P AD FOLD
8003	3139 241 02391		FFC FOIL 30P/080/30P BD
8012	3139 241 02301		FFC FOIL 26P/240/26P AD FOLD
8018	3139 241 02701		FFC FOIL 20P/220/20P BD FOLD
P001	3143 027 65712		FRONT TOP ASSY HTS6510
P002	3143 027 64752		FRONT BOTTOM ASSY HTS6500
P003	3143 027 65722		KNOB VOLUME ASSY HTS6510

LOADER ASSY VALLY-SONY HTS4550

1011	2422 549 00967	DVD LOADER MODULE VSH-L33D B
1012	2422 549 00629	DVD MECHANISM KHM-313AAA Y
1016	3139 243 20531	CUTSHEET LOADER FFC HTS4550
8008	3139 110 27881	CBLE PH 06P/180/06P PH 26ST BK